DRAFT
POND SITING REPORT

Florida Department of Transportation

Florida's Turnpike Enterprise

Project Development and Environment (PD&E) Study to
Widen Florida's Turnpike from South of I-595 to Wiles Road (MP 53-70)
Broward County, Florida

Financial Management Number: 442212-1
ETDM Number: 14350

June 2023

Pond Siting Report

DRAFT (2nd)
June 2023
Broward County, Florida
Financial Project No.: 4442212-1
EDTM No.: 14350
RS&H No.: 000-000-000

Prepared by RS&H, Inc. at the
direction of Florida's Turnpike Enterprise

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Professional Engineer Certification

Project: Widen Florida's Turnpike (SR 91) from South of I-595 to Wiles Road
ETDM Number: 14350
Financial Project ID: 442212-1-22-01
Federal Aid Project Number: TBD

This Pond Siting report contains engineering information that fulfills the purpose and need for the Project Development & Environment Study to Widen Florida's Turnpike (SR 91) from I-595 to Wiles Road (MP 43 to 70) in Broward County, Florida. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through professional judgment and experience.

I hereby certify that I am a registered professional engineer in the State of Florida practicing with RS&H, Inc., and that I have prepared or approved the evaluation, findings, opinions, conclusions, or technical advice for this project.

This item has been digitally signed and sealed by *Robert M. Garrigues* on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Executive Summary

This PD&E study is evaluating a 10-lane typical section with modifications at six interchanges. Expansion of the existing corridor capacity is required to enhance safety and accommodate travel demands out to the year 2045. The Florida Department of Transportation (FDOT), Florida's Turnpike Enterprise (FTE), is evaluating alternatives to widen the Florida's Turnpike Mainline from south of I-595 (milepost [mp] 53) to Wiles Road (MP 70), approximately 17 miles.

Currently, the Turnpike Mainline is typically eight to ten lanes (four lanes plus an auxiliary lane in each direction) from south of I-595 to south of Atlantic Boulevard and six lanes (three lanes in each direction) from south of Atlantic Boulevard to Wiles Road. The study consists of evaluating the widening of the Turnpike Mainline to ten lanes plus an auxiliary lane from south of I-595 (MP 53) to south of Atlantic Boulevard (MP 66) and widening to ten lanes from Atlantic Boulevard (MP 66) to Wiles Road (MP 70).

The corridor has been segmented into seven basins that center around the six major outfalls which include the N-4/C-11 Canal, North New River Canal, C-12 Canal, C-13 Canal, C-14 Canal and the Hillsboro Canal. The management and maintenance of each canal falls within the jurisdiction of the South Florida Water Management District (SFWMD). Stormwater management opportunities have been identified within each basin using a volumetric analysis for presumptive water quality treatment. The calculations for each opportunity followed SFWMD design criteria and water quality treatment considered the additional impervious area for the proposed improvements as well as any impervious area for which treatment may have been previously permitted. Nutrient treatment was not considered since none of the Waterbody Identification Numbered (WBID) areas that fall within the limits of the corridor was verified impaired for phosphorus or nitrogen.

With two minor exceptions between Peters and Oakland Park, stormwater management opportunities focused on offsite areas including remnant parcels as well as available space within the existing and/or proposed interchange areas. Due to the highly urbanized land use and the desire to minimize the need for offsite R/W not already owned by FTE, compensatory treatment techniques were utilized to develop stormwater alternatives in most basins. Existing water quality treatment credits were also identified within this report. However, they were not incorporated into the analysis because the available credit was very small, or because the proposed linear extended detention system where the credit was assigned was assumed to be 100% impacted because the proposed corridor improvements.

The table below presents the preferred alternatives identified along the corridor. Single location ponds were considered appropriate for the C-11/N-4 basin due to the available

volume within the I-595 interchange. Similarly, a single location pond was considered in the North New River (NNR) basin due to the available space within a large existing pond located in the northwest quadrant of the I-595 interchange. The other single location pond was at the end of the project. This was appropriate because the basin is relatively small compared to some of the others and didn't involve multiple sub-basins. Within all other basins, stormwater scenarios were considered that included multiple ponds within each sub-basin.

Basin/Pond Nomenclature	Pond Nomenclature	Preferred Alternative	Anticipated R/W Required
C-11/N-4	Single Location (Pond 1)	Alternative 2	0.00 ac.
NNR	Single Location (Pond 1)	Alternative 1	0.00 ac.
C-12	1A/1B/Interchange Areas A thru E	Alternative 1	0.00 ac.
C-13	1A/1B (1B-1/1B-2)	Alternative 1	3.19 ac. (1B-2)
C-14 (SR 7 to C-14)	1A-1/1A-2/1B/1C/1D	Alternative 1	5.75 ac. (1B) 7.16 ac. (1C)
C-14 (C-14 to Sample)	1A-1/1A-2/1B	Alternative 1	0.00 ac.
Hillsboro	Single Location (Pond 1)	Alternative 1	0.00 ac.

1 Introduction

This PD&E study is evaluating a 10-lane typical section with modifications at six interchanges. Expansion of the existing corridor capacity is required to enhance safety and accommodate travel demands out to the year 2045. Capacity expansion will improve travel time and reliability as well as enhancing emergency response and evacuation. One of the major project goals is to improve South Florida's economic and employment viability.

2 Project Description

The Florida Department of Transportation (FDOT), Florida's Turnpike Enterprise (FTE), is evaluating alternatives to widen the Florida's Turnpike Mainline from south of I-595 (milepost [mp] 53) to Wiles Road (MP 70), approximately 17 miles. The project is located in Broward County, Florida and is contained within eleven municipalities Coconut Creek, Davie, Deerfield Beach, Fort Lauderdale, Lauderdale Lakes, Lauderhill, Margate, North Lauderdale, Plantation, Pompano Beach and Tamarac. **Figure 2-1** Project Location Map shows the limits of the PD&E Study.

Figure 2-1: Project Location Map

Currently, the Turnpike Mainline is typically eight to ten lanes (four lanes plus an auxiliary lane in each direction) from south of I-595 to south of Atlantic Boulevard and six lanes (three lanes in

each direction) from south of Atlantic Boulevard to Wiles Road. The study consists of evaluating the widening of the Turnpike Mainline to ten lanes plus an auxiliary lane from south of I-595 (MP 53) to south of Atlantic Boulevard (MP 66) and widening to ten lanes from Atlantic Boulevard (MP 66) to Wiles Road (MP 70). Existing and proposed typical sections are shown in **Figure 2-2** thru **Figure 2-5**.

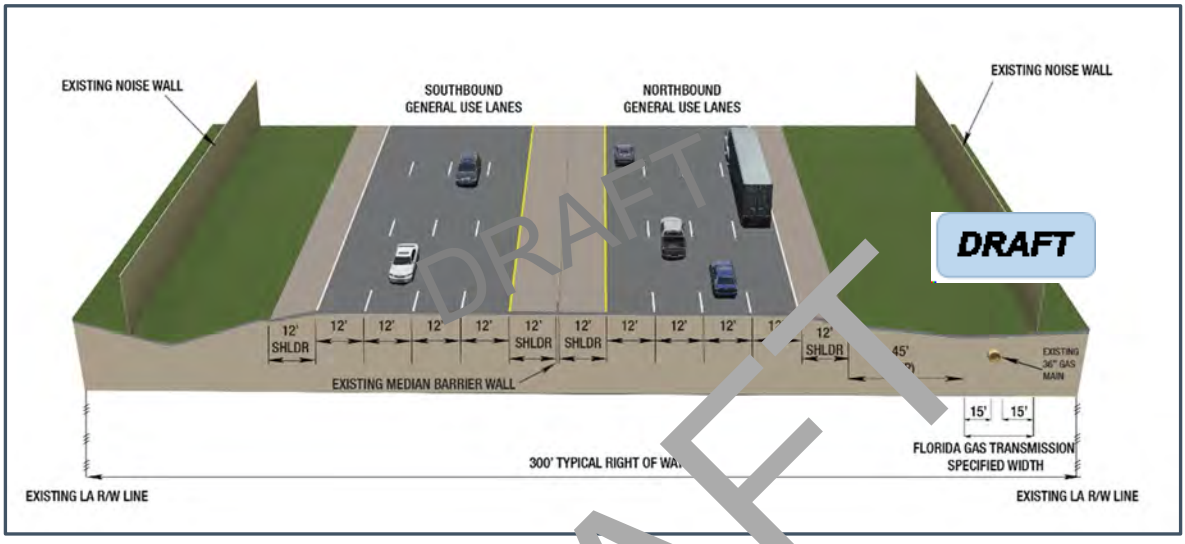


Figure 2-2: Existing Typical Section (I-595 to Atlantic Boulevard)

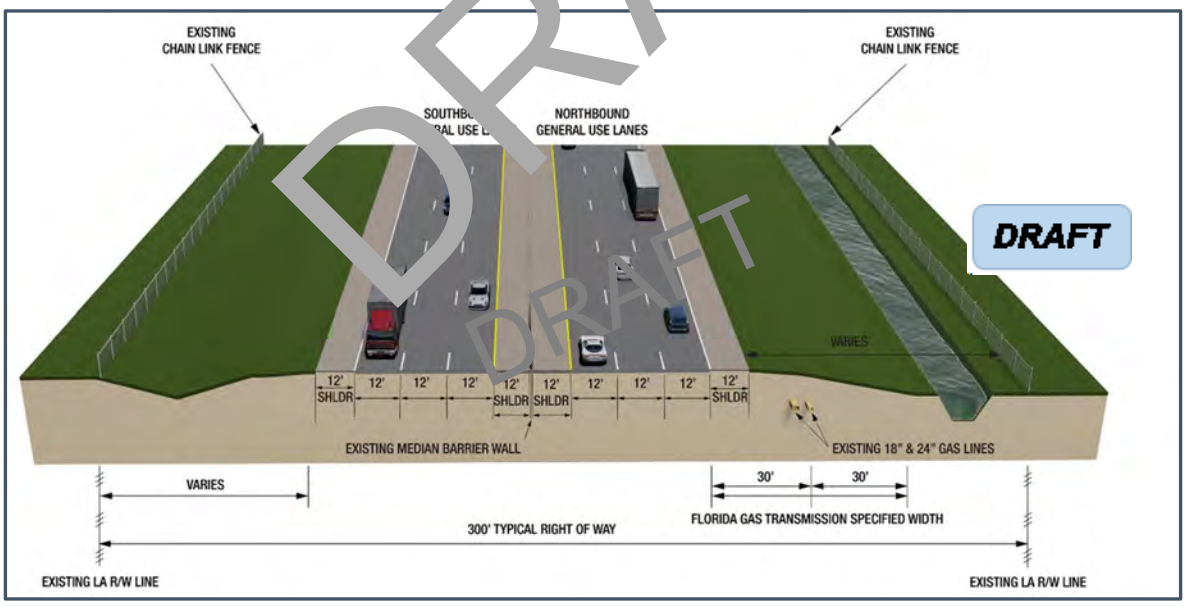


Figure 2-3: Existing Typical Section (Atlantic Boulevard to Wiles Road)

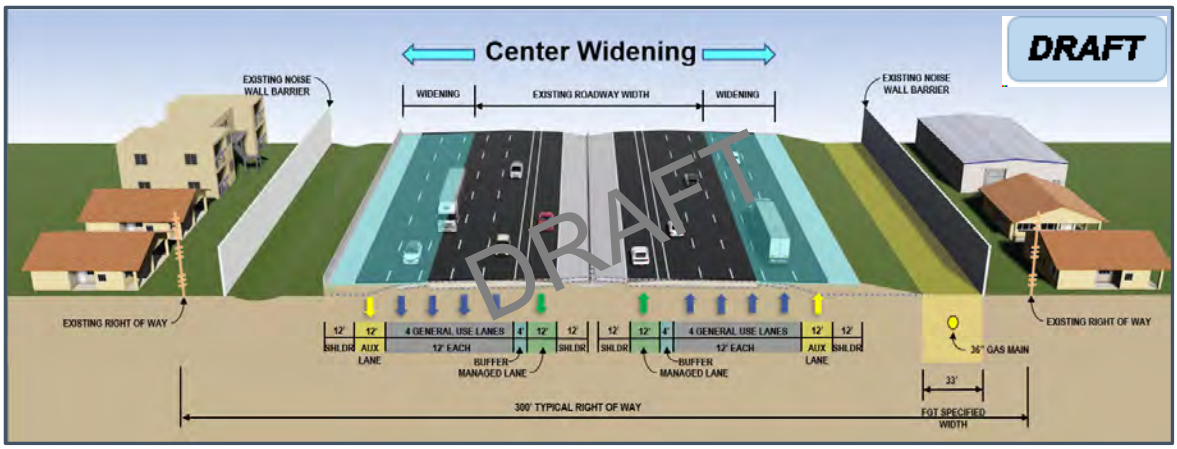


Figure 2-4: Proposed Typical Section (South of I-595 to South of Atlantic Boulevard)

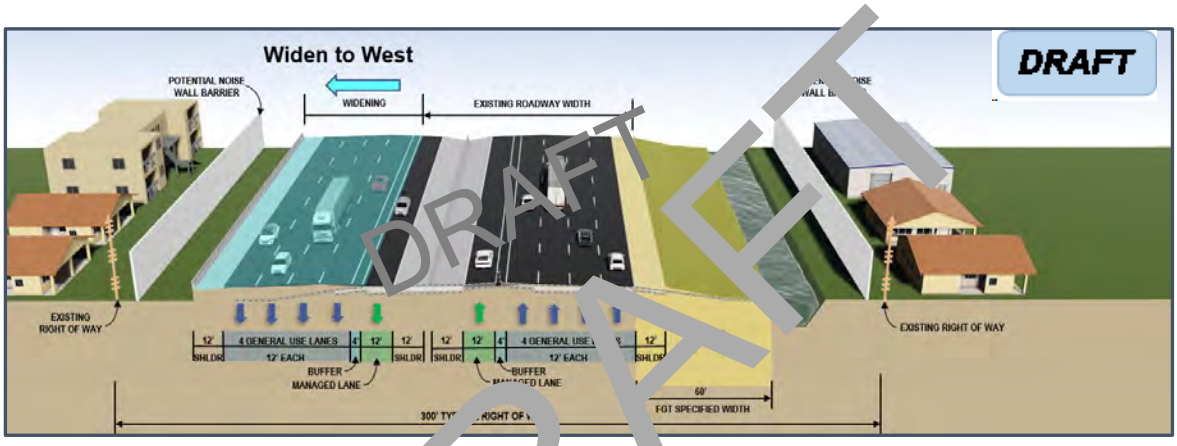


Figure 2-5: Proposed Typical Section (South of Atlantic Boulevard to Wiles Road)

Land use adjacent to the Turnpike Mainline within the project limits is predominately residential with areas of commercial and industrial land uses toward the northern end of the project.
The improvements being evaluated also include milling and resurfacing, bridge construction and existing interchange improvements. The existing interchanges within the limits of the study include I-595, Sunrise Boulevard, Commercial Boulevard, Atlantic Boulevard, Coconut Creek Parkway and Sample Road. The evaluation for two potential new reliever interchanges, one at Cypress Creek Road/McNab Road and one at Oakland Park Boulevard, is also part of the PD&E Study.

Figure 2-6 and **Figure 2-7** present soils information from the Natural Resource Conservation Service (NRCS) and the limits of adjacent wellfield influence zones, respectively. **Table 2-1** presents applicable Section Range and Township information.

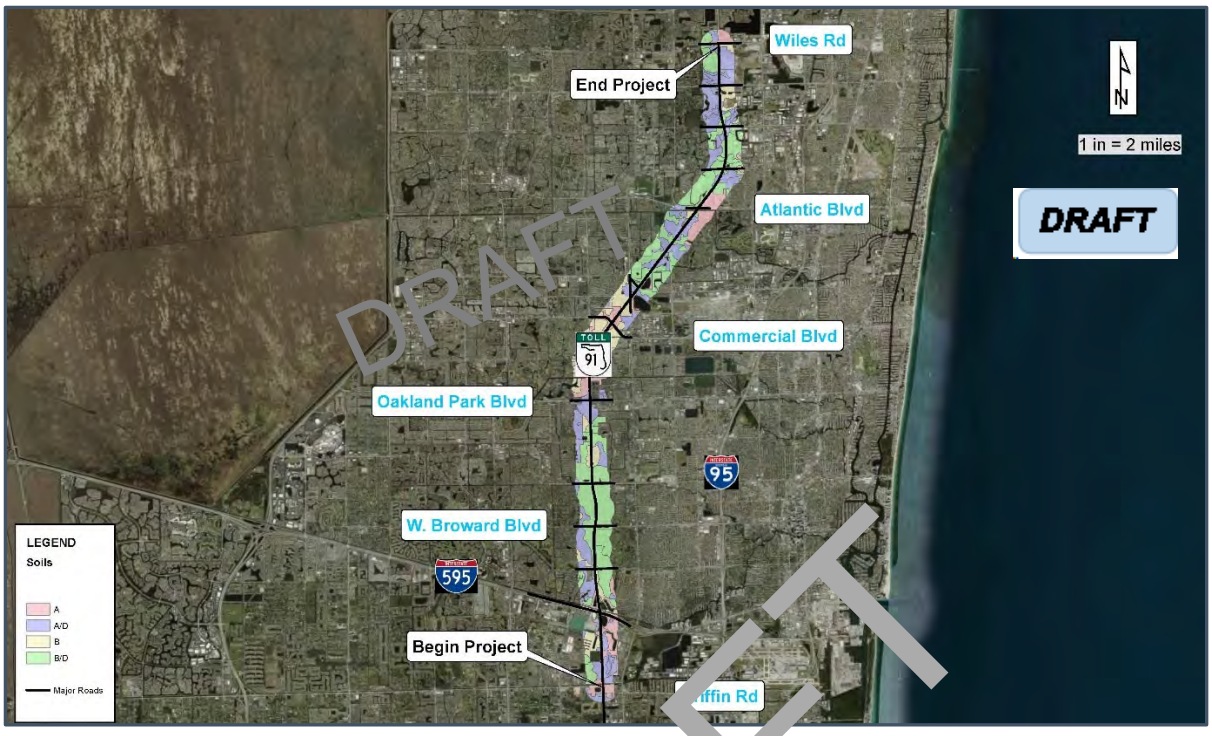


Figure 2-6: NRCS Soils Map

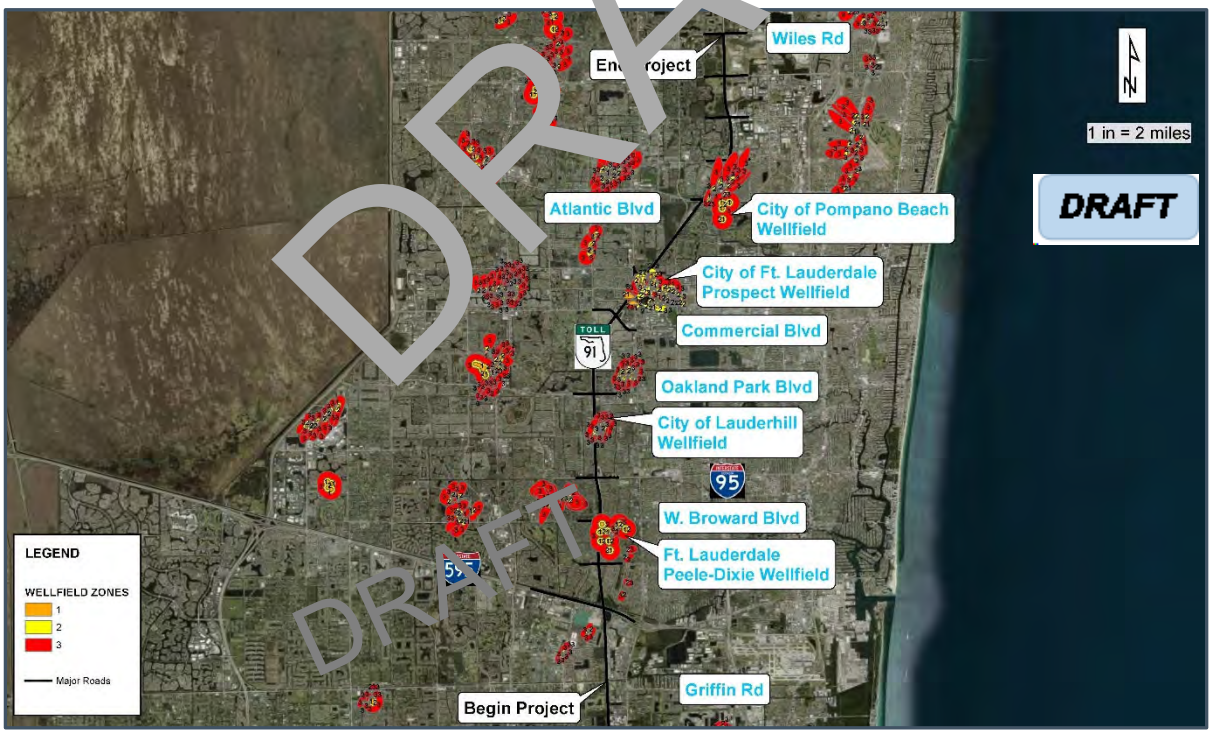


Figure 2-7: Wellfield Map

Table 2-1: Section Township and Range

Section	Township	Range
16, 17, 20, 21, 28, 29, 32, 33	T 48 S	R 42 E
5, 6, 7	T 49 S	R 42 E
12, 13, 14, 23, 24, 25, 26, 35, 36	T 49 S	R 41 E
2, 11, 12, 13, 14, 23, 24	T 50 S	R 41 E

The vertical datum used for this project is the North American Vertical Datum of 1988 (NAVD88). Some older but relevant data sources may reference the National Geodetic Vertical Datum of 1929 (NGVD29). The datum conversion factors along the corridor are shown in **Table 2-2**.

Table 2-2: Survey Datum Conversion Factor

Location		Conversion Factor
Project Limits (MP 53) to Peters Road		NAVD88+1.54 = NGVD29
Peters Road to Wiles Road (MP 70)		NAVD88+1.57 = NGVD29

3 Data Collection

The following sources of information were used to collect data in support of this pond siting report

- LIDAR Data
- Aerial Imagery
- USDA NRCS Web Soil Survey (2022)
- FEMA Flood Insurance Rate Maps
- As-build information from the following projects
    - Griffin Road to Sunrise Blvd. Southbound FPID: 406094-1-52-01
    - Peters Road to Sunrise Blvd. Northbound FPID: 406094-4-52-01
    - Sunrise Interchange FPID: 406103-1-52-01
    - Sunrise Blvd. to Atlantic Blvd. Southbound FPID: 4[illegible]6097-1-52-01
    - Sunrise Blvd. to Atlantic Blvd. Northbound FPI[illegible]: 4[illegible]6097-4-52-01
    - Turnpike at I-595 Zone 8A and 8B FPID: 42[illegible]809-3-52[illegible]01
    - AET Phase 5A, I-595 to Lantana Blvd. FP[illegible]: 429339-1-52[illegible]1
- Design Information from the following proje[illegible]
    - Atlantic Avenue to Wiles Road FPID: 406[illegible]-1-52-01
    - Copans Road Drainage Impro[illegible]ts FPID: [illegible]43901-1-52-01
    - I-595 Corridor Improvements S[illegible]rmw[illegible]ter Management Facility Evaluation Report FM No. 420809-1-32-[illegible]
- SFWMD Permit Documen[illegible]tion
    - Identified in subse[illegible]ent [illegible]epor[illegible]bles
- Location informatio[illegible]m th[illegible]following KMZ files
    - FTE Dra[illegible]age Conn[illegible]ction [illegible]ermit KMZ
    - FTE Exce[illegible] Parcels 2[illegible]14 KMZ

4 Design Criteria

4.1 Rules & Regulations / Regulatory Agency Coordination

Project improvements will be designed to meet the regulatory requirements of the South Florida Water Management District (SFWMD), Florida Department of Environmental Protection (FDEP), United States Army Corps of Engineers (USACE), the requirements outlined in the FDOT Drainage Manual, and the requirements of FTE. It is anticipated that the following permits will be required as part of the design. Minutes from the SFWMD pre-application meeting have been included in **Appendix E**.

- SFWMD Individual Environmental Resource Permit
- FDEP 404 Dredge and Fill Permit
- SFWMD ROW Occupancy Permit
    - Work in the C-12, C-13 and C-14 Canal R/W will require a USACE S408 review
- FDEP NPDES Permit

4.1.1 Water Quality Criteria

SFWMD Presumptive Treatment

- ***Wet detention***: volume shall be provided for 2.5 inches times the increase in impervious area.
- ***Dry Retention***: retention volume shall be provided equal to 50 percent of the above amounts computed for wet detention. Retention volume included in flood protection calculations requires a guarantee of long-term operation and maintenance of system bleed-down ability.
- ***Dry Detention***: volume shall be provided equal to 75 percent of the above amounts computed for wet detention

In addition to providing water quality treatment for the increase in impervious area associated with these improvements, water quality treatment will also be considered for any impervious area that was previously permitted for treatment if the existing permitted stormwater management facility will be impacted by the proposed improvements.

SFWMD Nutrient Treatment

FDEP maintains the Statewide Comprehensive List of Impaired Waters, which contains waterbody-parameter combinations that have been verified as impaired based on criteria and assessment methodologies. WBID's that are impaired for nutrients will be required to demonstrate a net reduction in nutrient loading in the post development condition. **Figure 4-1** illustrates the limits and location of each WBID, and **Table 4-1** presents impairment information. The only WBID's that are impaired for Dissolved Oxygen (DO) are considered unverified impaired. This means that that despite a water quality test showing a DO exceedance, a specific source for the exceedance could

Figure 4-1: WBID MAP

not be identified. Based on the information presented in this table, nutrient water quality treatment is not required.

Table 4-1: Statewide Water Quality Assessments

WBID	Identified Parameter	Comments
3281	Dissolved Oxygen	Unverified impaired
3277A	Fecal Coliform	No nutrient impairment
3277B	Copper	No nutrient impairment
3276	NA	No impairment
3273	NA	No impairment
3270	NA	No impairment
3264	Dissolved Oxygen	Unverified impaired

4.1.2 Water Quantity Criteria

SFWMD

For open basins, the post-development peak discharge rate must not exceed the pre-development peak discharge rate during the 25-year, 72-hour storm. For closed basins, the post-development peak discharge volume must not exceed the pre-development peak discharge rate and volume during the 100-year, 72-hour storm.

FDOT

All basins along this corridor are considered open basins and the pond siting evaluation will follow SFWMD open basin criteria.

4.2 Project-Specific Criteria

The following list identifies water control districts with jurisdictional limits that overlap FTE R/W along the corridor. The design criteria for each of these water control districts generally align with the SFWMD as it relates to water quality and water quantity and therefore it does not appear as though there are any project specific design criteria that must be met.

- Tindall Hammock Irrigation and Soil Conservation District (THISCD)
- Old Plantation Water Control District (OPWCD)
- North Lauderdale Water Control District (NLWCD)
- Broward County Water Control District 2, 3 and 4
- Cocomar Water Control District

5 Environmental Look Around

Environmental Look Around (ELA) Meetings were held with the stormwater stakeholders presented in **Table 5-1** to discuss potential joint use and regional opportunities.

Table 5-1: ELA Meetings

Stakeholder	Meeting Date(s)	Comments
SFWMD	05-20-2021	No specific opportunities identified
Broward County WCD-2	11-09-2021	No specific opportunities identified
Broward County WCD-3	11-09-2021	No specific opportunities identified
Broward County WCD-4	11-09-2021	No specific opportunities identified
Cocomar WCD	11-09-2021	No specific opportunities identified
Old Plantation Water Control District	11-16-2021 02-01-2021	No specific opportunities identified No specific opportunities identified
Tindall Hammock Irrigation and Soil Conservation District	11-16-2021	No specific opportunities identified
City of Lauderhill	11-16-2021	No specific opportunities identified
Broward County	5-3-2022	Tradewinds Park
City of Davie	6-6-2022	No specific opportunities identified

There is existing R/W that is shared by FTE and Broward County adjacent to Tradewinds Park between Sample Road and Wiles Road. There was an agreement put in place during the design of FPID 406150-1 to develop a stormwater management facility that will serve both stakeholders. Since that project was halted prior to Phase III design, the agreement will be updated and perpetuated as part of this PD&E project.

The Fern Forest Nature Center is another location where previous joint use opportunities existed. This area is located west of the Pompano Service Plaza and stormwater has been allowed to discharge from the Turnpike R/W and into the existing wetlands without attenuation. The goal was to provide supporting hydration during times of drought. Sending additional stormwater runoff to the wetlands was explored during the ELA process. However, Broward County Parks indicated that the wetlands are re-hydrated and they are not interested in getting more stormwater runoff from FTE R/W.

6 Existing & Proposed Conditions

6.1 Existing Drainage Conditions

As shown in **Table 6-1**, six major basins have been identified within the limits of the study area. The outfall location for each basin is the canals that transect the corridor. Existing and proposed condition drainage maps are included in Appendix A.

Table 6-1: Corridor Basin Summary

Basin	Extents	Receiving Waterbody	Open/Closed
C-11/N-4	MP 53 (Orange Drive) to I-595*	N-4 Canal	Open
North New River	I-595 to Peters Road	North New River Canal	Open
C-12	Peters Road To Oakland Park Blvd.	C-12 Canal	Open
C-13	Oakland Park Blvd to SR 7	C-13 Canal	Open
C-14	SR 7 to Sample Road	C-14 Canal	Open
Hillsboro Canal	Sample Road to Wiles Road	Hillsboro Canal	Open

**This PD&E study begins at MP 53 which is just north of Orange Drive at approximately Station 1248+00*

Table 6-2 presents information related to the starting water surface elevation in each of the outfall canals perpendicular to the corridor and the Old Plantation Water Control District Canal System. Except for FPID 406150, this information is based on previous design projects, and these are the elevations that have historically been used as a basis for the control elevation of ponds. The FPID 406150 design was never completed past Phase II, but that design used the average wet season water table map as recommended by Broward County during coordination meetings and the appropriate values are included in the table.

Table 6-2: Seasonal High Water Table Elevations

Sub-Basin	Outfall	Elevation (NAVD88)	Comments
Orange Drive to I-595	N-4 Canal	1.40	Control elevation of interchange ponds.
I-595 to Peters Road	North New River	1.40	The NNR canal is a tidal canal, and the control elevation is around 0.26 NAVD88. However, the elevation shown was used as the control elevation for the existing pond.
Peters Road to C-12 Canal	Old Plantation Water Control District	1.96	Drainage design documentation FPID 406094.
C-12 Canal to Oakland Park Blvd.	C-12	1.93	Drainage design documentation FPID 406094 and 406097.
Oakland Park Blvd. to SR 7	C-13	2.9	Drainage design documentation FPID 406097.
SR 7 to C-14	C-14	5.43	Drainage design documentation FPID 406097.
C-14 to Copans Road	C-14	5.43	Drainage design documentation FPID 406150.
Copans Road to Sample Road	C-14	7.50	Drainage design documentation FPID 406150.
Sample Road to Wiles Road	Hillsboro Canal	8.43	Drainage design documentation FPID 406150.

Table 6-3 presents information regarding drainage connection permits along the corridor. In the past, multiple entities have inquired about or applied for a permit, however, there is only one approved permit shown in the Drainage Connection Permit KMZ file.

Table 6-3: Drainage Connection Permits

Name	Permit Number	Mile Post
Florida Medical Center	TP-86-DC-215-02	60
Shoppes of Inverrary	TP-86-DC-200-05	60
Central Parc South	TP-86-DC-006-16	62.5

6.1.1 C-11/N-4 Basin (1248+00 to Station 1338+00)

This basin encompasses the southern end of the project from Begin project (Orange Drive) to I-595. The ultimate outfall for most of this basin is south into the Central Broward Water Control District (CBWCD) N-4 Canal. There is also a single outfall into the North New River (NNR) Canal

which was constructed during the I-595 improvements at this interchange. The intent of this outfall structure was to facilitate attenuation into the N-4 Canal and maintain post development discharges at or below the pre-development condition.

There are three different stormwater management systems that ultimately discharge to the N-4 Canal. At the southern end of basin to just south of the I-595 interchange, stormwater runoff from the northbound side of the Turnpike mainline is collected in an existing linear detention pond adjacent to the northbound lanes. The outfall for this system is an existing control structure and 24-inch cross drain (CD-2) that conveys runoff from the linear pond to the west underneath the Turnpike mainline and into the N-4 Canal. The southbound side of the Turnpike mainline is conveyed west underneath the N-4 Canal and into the existing FDOT borrow pit. The control structure for the borrow pit discharges to the east and back into the N-4 Canal. The I-595 interchange at the north end of the basin consists of a series of interconnected ponds and control structures that ultimately discharge south into an existing ditch adjacent to the Turnpike northbound lanes and into the N-4 Canal. CD-4 is a 72" pipe that provides the main hydraulic connection between the eastside of the interchange and the westside of the interchange.

The most recent improvements to this corridor were constructed as part of the Zone 8A improvements for the I-595 Express Project under SFWMD Permit No. 06-05659-P (Application No. 110107-6). Under that permit water quality treatment was provided for 2.5 inches over the impervious area. Review of the water quality summary information provided in the permit design calculations, indicate the required water quality volume is 18.05 ac.-ft. and the provided water quality volume is 29.35 ac.-ft. This means that there are 11.30 ac.-ft. of surplus water quality volume within this basin. It is worth noting that this surplus appears to be a volume surplus rather than an impervious area surplus.

Stormwater runoff from offsite areas that discharge through this basin are conveyed west beneath the Turnpike mainline directly into the N-4 Canal. There is approximately 35.40 acres of offsite area between Orange Drive and SW 36th Street that discharges runoff into the N-4 Canal via a 42-inch cross drain (CD-1). There is also approximately 119.80 acres of industrial park located north of SW 36th Street and includes the Twin Lakes Travel Park that discharges stormwater runoff west under the Turnpike mainline and into the N-4 Canal via a 4' x 4' Concrete Box Culvert (CD-3). In the southwest quadrant of the interchange, there is a small 4.0-acre offsite area that discharges into the interchange wet ponds.

Excess parcels in this basin are located at MP 54.1 and MP 54.6. Both parcels are adjacent to the southbound lanes. The parcel at MP 54.1 is a narrow sliver of R/W the is located between the outside edge of pavement and the N-4 Canal. The parcel at MP 54.6 is the large square FDOT borrow pit that is currently utilized as a pond.

6.1.2 North New River Basin (Station 1338+00 to Station 1394+00)

This basin begins at I-595 and ends at Peters Road. The main outfall from this basin is at the southern end into the North New River (NNR) Canal which is tidally influenced. The only stormwater management system is an existing triangular pond at the southern end of the basin and adjacent to the southbound lanes that includes an existing control structure which provides peak discharge attenuation which has been incorporated into previous improvements and associated permits. Stormwater runoff for both the northbound and southbound lanes is conveyed to the pond and the outfall control structure discharges into the NNR Canal. A 72" pipe (CD-6) conveys stormwater runoff from the northbound lanes underneath the Turnpike and into the existing pond.

The most recent improvements to this corridor were constructed as part of the Zone 8B improvements for the I-595 Express Project under SFWMD Permit No. 06-05659-P (Application No. 110107-6). Under that permit water quality treatment was provided for 2.5 inches over the impervious area which included a section of the Turnpike mainline and also resulted in modification to the FTE borrow pit pond outfall structure. Review of the water quality summary information provided in the permit design calculations indicates that the required water quality volume is 5.75 ac.-ft., and the provided water quality volume is 7.88 ac.-ft. This means that there are 2.13 ac.-ft. of surplus water quality volume within this basin.

There are two offsite areas that convey stormwater runoff through this basin and into the existing pond. A 22.10-acre offsite area is located adjacent to the southbound lanes. Stormwater runoff is conveyed from this area underneath the Turnpike via a 5' x 5' Concrete Box Culvert (CD-5). There are also approximately 9.8 acres of Peters Road that are conveyed to the pond within this basin. Stormwater runoff from the eastern end of Peters Road is conveyed beneath the Turnpike via a 54" pipe (CD-7). The only excess parcel in this basin is located at MP 56 and is currently utilized as the existing triangular stormwater management facility.

6.1.3 C-12 Basin (Station 1394+00 to Station 1607+00)

This basin begins at Peters Road and extends to Oakland Park Boulevard. Between Peters Road and the C-12 Canal, runoff flows north into the C-12 Canal, or east into the OPWCD canal system and ultimately discharges into the C-12 Canal via OPWCD Control Gate No. 4. Between the C-12 Canal and Oakland Park Boulevard, runoff flows south around the Sunrise Interchange and into the City of Lauderhill Canal system which ultimately discharges into the C-12 Via a control gate upstream of the existing lake in the southeast quadrant of the interchange. Within the C-12 basin, there are three sub-basins identified as follows.

- Peters Road to Broward Boulevard
- Broward Boulevard to Sunrise Boulevard
- Sunrise Boulevard to Oakland Park Boulevard

Peters Road to Broward Boulevard

The only stormwater management system within this sub-basin is a linear extended detention pond located adjacent to the northbound lanes. Stormwater runoff for both the north and southbound lanes is conveyed into this pond and the outfall control structure discharges north underneath Broward Boulevard and into a pair of perforated double 66-inch pipes that ultimately connect to the C-12 Canal. This allows groundwater to recharge between Peters Road and Broward Boulevard.

There is a 54.80-acre and a 37.20-acre offsite area on the west side of the Turnpike from which stormwater runoff is conveyed into the R/W adjacent to the southbound lanes. This runoff is collected in a perforated 30" pipe that also allows groundwater recharge prior to leaving the Turnpike R/W. The perforated pipe system is connected to a 36" pipe that leaves Turnpike R/W at Station 1420+00. At this location, stormwater runoff is conveyed to the west into the Old Planation Water Control District (OPWCD) canal system. There are also 8.3 acres of offsite area adjacent to the northbound lanes that discharge north beneath Broward Boulevard and into the double 66" pipes. The only excess parcel within this sub-basin is at MP 56.7. It is a very narrow triangle of property located adjacent to westbound lanes of Peters Road in the northwest quadrant of the Peters Road overpass.

It is important to note that prior to the construction of the improvements associated with FPID 406094-1 existing canals adjacent to the northbound and southbound lanes of the Turnpike were open and directly connected to the existing groundwater. It should also be noted that this sub-basin is located within the Peele-Dixie wellfield zone of groundwater influence. When the Turnpike was widened from six lanes to eight lanes it was necessary to fill in the existing ditches for ease of maintenance. To maintain the existing connection to the groundwater within the wellfield influence zone, a 30" perforated pipe was added adjacent to the southbound lanes as a condition of SFWMD permit issuance. Additionally, at the request of the City of Ft. Lauderdale a single 66" stub-out pipe located adjacent to the northbound lanes at Station 1440+60 was constructed, capped and buried. The City of Ft. Lauderdale desired this connection to the Peele-Dixie wellfield in case at some future time the wellfield would benefit from accepting Turnpike stormwater runoff.

Broward Boulevard to Sunrise Boulevard

The only stormwater management system within this sub-basin is a linear extended detention pond located adjacent to the southbound lanes. Because this sub-basin is part of a superelevated segment of Turnpike, stormwater runoff from all southbound lanes and approximately half of the northbound lanes discharge into the existing pond. The pond outfall control structure discharges west into a canal that parallels the southbound lanes which is shared with OPWCD. Ultimately, the stormwater in the OPWCD shared canal discharges to the west or to the north into the OPWCD canal system. Further to the west, the OPWCD canal system is connected to the C-12 Canal via

OPWCD Control Gate No. 4. Within the area of the northbound lanes where stormwater is not conveyed into the existing pond, runoff is collected in perforated double 66" pipes. As mentioned previously, the 66" pipes maintain a connection to the C-12 Canal and to the existing groundwater which facilitates groundwater recharge within the wellfield zone of influence. Ditch bottom inlets are also periodically located along the 66" pipe to allow air transfer and oxygenation of the water in the pipes. This was also a condition of SFWMD permit issuance.

Stormwater runoff from the existing northbound pavement, that is not conveyed into the existing stormwater pond, is conveyed in the double 66" pipes and into the C12 Canal. There is also approximately 289 acres of offsite area on the east side of the Turnpike that is conveyed into the C-12 Canal via the double 66" pipes. There are several excess parcels located adjacent to the northbound lanes beginning at Broward Boulevard and extending to the C-12 Canal. These parcels are identified as being located at MP 57.9, MP 58.1, and MP 58.2. It is also within an easement occupied by FGT. There is also a second excess parcel located at MP58.1 adjacent to the southbound lanes. This is in the area of the OPWCD shared canal, part of which already includes an existing extended linear detention pond.

Sunrise Boulevard to Oakland Park Boulevard

The main stormwater management system within this sub-basin is located within the interchange. Stormwater runoff from the Turnpike mainline within the interchange as well as 61.80 acres of offsite area adjacent to the loop ramp and the southbound lanes north of the interchange is also conveyed into the existing pond. Runoff from the offsite area, the loop ramp and the Turnpike southbound lanes are conveyed into the large infield pond via a 42" cross drain (CD-8). There are two control structures and cross drains (CD-9 and CD-10) that convey runoff from the large infield pond into the collection system on the outside of the interchange which ultimately flows south and connects to the City of Lauderhill Canal.

The second smaller stormwater management system is an extended linear detention system located adjacent to the southbound lanes. This linear pond begins just south of the existing gantry and extends north to Oakland Park Boulevard. The pond accepts stormwater runoff from the southbound lanes and the control structure discharges to an existing collection system adjacent to the northbound lanes via a 36" cross drain (CD-11). There is also a small 5.2-acre offsite area the conveys runoff into this pond. The existing collection system conveys runoff south into the City of Lauderhill Canal. It also includes a series of ditch bottom inlets that allow air exchange and oxygenation of the water in the pipe. These inlets were required as a condition of the SFWMD permit.

The existing collection system adjacent to the northbound lanes also accepts stormwater runoff from the northbound lanes as well as two offsite areas (111.10 acres and 2.00 acres), and 16.0 acres from the Florida Medical Center (Drainage Connection Permit No. TP-86-DC-215-02).

Since 2004, all improvements to this basin were constructed under SFWMD Permit No. 06-02282-P through multiple permit modifications. **Table 6-4** presents the recent permits.

Table 6-4: Permit Summary Table

Application	Permit	Date Issued
040120-19	06-02282-P	8/2004
041015-7	06-02282-P	3/2005
071130-5	06-02282-P	12/2007
091123-17	06-02282-P	12/2010
120208-1	06-02282-P	3/2012
111222-14	06-02282-P	3/2012

Table 6-5 presents existing treatment volume within each sub-basin based on a review of the permitted water quality summary information.

Table 6-5: Water Quality Treatment Summary

Sub-Basin	Required Treatment (ac.ft.)	Provided Treatment (ac.ft.)	Surplus (ac.ft.)	Comment
Peters Rd. to Broward Blvd.	2.10	2.4	0.32	Dry Detention
Broward Blvd. to Sunrise Blvd.	2.96	1.44	(-)1.52	Dry Detention
Sunrise Blvd. to North of Interchange	2.28	3.69	1.41	Wet Detention
North of Interchange to Oakland Park		0.60	0.04	Dry Detention

Note: The negative value shown in the table above indicates that the required treatment volume was not met within this sub-basin, but compensation was provided in other sub-basins as evidenced by a greater provided treatment, than required treatment.

6.1.4 C-13 Basin (Station 1607+00 to Station 1753+00)

This basin begins at Oakland Park Blvd and ends at SR 7. North of Oakland Park Boulevard, stormwater runoff flows north into the C-13 Canal. South of SR 7, stormwater runoff flows south into the C-13 Canal. Within this basin there are three separate stormwater management systems.

Stormwater runoff from the southbound lanes, between SR 7 and the north end of the Commercial Boulevard interchange, discharges into a dry linear extended detention system adjacent to the southbound lanes. The control structure for this system discharges into a wet ditch that conveys the runoff around the loop ramp on the west side of the Turnpike ultimately connecting to the C-13 Canal. Stormwater runoff from the northbound lanes between SR 7 and Commercial Boulevard, including the east half of the interchange, discharges into the larger of the two wet ponds within the interchange. The outfall for this pond is an existing 24" pipe (CD-16) that conveys discharge underneath the Turnpike and into the existing canal adjacent to the southbound lanes which connects to the C-13 Canal. Stormwater runoff from the northbound lanes between the C-13

Canal and Commercial Boulevard is conveyed into an existing linear extended detention swale. The swale includes two control structures that discharge to the west underneath the Turnpike via a 30" (CD-12) and 24" (CD-13) pipes, and into the existing canal located adjacent to the southbound lanes. As previously mentioned, this existing canal is connected to the C-13 Canal. Between Oakland Park Boulevard and the C-13 Canal, there is no treatment or attenuation for existing pavement because compensation for impervious area added as part of the four-lane to eight-lane expansion occurred to the north between the C-13 Canal and SR 7.

Within this basin, the main conveyance beneath Commercial Boulevard is an existing double 7' x 5' CBC located within Turnpike R/W adjacent to the southbound lanes (CD-14). CD-14 conveys runoff from an existing canal north of Commercial Boulevard into an existing canal south of Commercial Boulevard which ultimately discharges into the C-13 Canal. There is also a second conveyance pipe (CD-14) which is a 5' x 3' CBC located adjacent to CD-15. This pipe appears to be partly within Turnpike R/W and partly outside Turnpike R/W. The conveyance of this is unclear and may be opposite of CD-14. It may convey offsite runoff from south of Commercial Boulevard to the north side of Commercial Boulevard and into the existing canal on the north side of Commercial Boulevard.

Since 2004, all improvements to this basin were constructed under SFWMD Permit No. 06-02282-P through multiple permit modifications. **Table 6-6** presents the recent permits.

Table 6-6: List of SFWMD permit applications

Application	Permit	Date Issued
040120-19	06-02282-P	8/2004
041015-7	06-02282-P	3/2005
071130-5	06-02282-P	12/2007
091123-17	06-02282-P	12/2010
120208-1	06-02282-P	3/2012
111222-14	06-02282-P	3/2012

Table 6-7 presents existing treatment volume within each sub-basin based on a review of the permitted water quality summary information.

Table 6-7: Water Quality Treatment Summary

Sub-Basin	Required Treatment (ac.ft.)	Provided Treatment (ac.ft.)	Surplus (ac.ft.)	Comment
Oakland Park to SR 7	2.90	2.93	0.02	Dry Detention
Oakland Park to SR 7	1.05	1.13	0.08	Wet Detention

There are several offsite areas that contribute stormwater runoff to this basin. There are 174.50 acres located adjacent to the southbound lanes between Rock Island Road and Commercial Boulevard. Between Commercial Boulevard and SR 7 there is approximately 585.30 acres. This is a particularly sensitive area that has already experienced historic flooding and any modifications to the existing canal adjacent to the southbound lanes must take this into consideration. Concerns about historic flooding was the main reason the canal wasn't filled in and piped as part of the modification to permit no. 06-02282-P that was issued in 2004. There is also 17.3 acres of offsite area adjacent to the southbound lanes between SR 7 and the Commercial Boulevard interchange. The only excess parcel within this basin is located east of Rock Island Road in the northwest quadrant of the Oakland Park Boulevard overpass.

It is important to note that the northern part of the basin between Commercial Blvd. to SR 7 lies within 10,000 feet of the Ft. Lauderdale Executive Airport AOA which is the airport operations area. As such, FAA Advisory Circular 150/5200-33C will have to be considered during design. Section 5.4.1.5 of the current FDOT Drainage Manual requires coordination with the District Aviation Coordinator as part of the design process.

6.1.5 C-14 Basin (Station 1753+00 to Station 2[illegible]1+50)

This basin begins at SR 7 and extends to Sample Road. It includes the following four sub-basins. Between SR 7 and Atlantic Boulevard, stormwater is conveyed north into the C-14 Canal. Between Sample Road and Atlantic Boulevard, stormwater runoff is conveyed south into the C-14 Canal either directly or via the Broward County C-3 Canal. Within the C-14 basin, there are four sub-basins identified as follows.

- SR 7 to Atlantic Boulevard
- Atlantic Boulevard to Coconut Creek Parkway
- Coconut Creek Parkway to Copans Road
- Copans Road to Sample Road

SR 7 to Atlantic Boulevard

There are multiple stormwater management systems within this sub-basin. For clarity and because every outfall within this sub-basin does not directly discharge into the C-14 Canal within the limits of FTE R/W, this sub-basin has been separated into multiple smaller basins as described in the following paragraphs.

SR 7 to Toll Gantry – There is an existing wet detention pond in the southeast quadrant at the Cypress Creek Road overpass. This pond provides the treatment and attenuation for the area of the sub-basin between SR 7 and the toll gantry. There are two 48" pipes (CD-17 and CD-20) that convey runoff from the southbound side of the Turnpike to the northbound side of the Turnpike and into the pond. The main conveyances underneath W. Cypress Creek Road are a 48" pipe (CD-18) which is located adjacent to the southbound lanes and conveys runoff from north to south.

There is also a 54" pipe (CD-19) which is located adjacent to the northbound lanes and conveys runoff from the pond back underneath W. Cypress Creek Road and to the north. The outfall for this pond is a large weir structure near Station 1820+00 that discharges east into a canal identified as Canal A.

Toll Gantry to Lyons Road – Between toll gantry and Lyons Road, there is also a linear detention system located adjacent to the southbound lanes that provides treatment and attenuation for the southbound lanes. The outfall for this system is a 72" pipe (CD-21) that conveys runoff to the northbound side of the road.

Lyons Road to Atlantic Boulevard – Between Lyons Road and the C-14 Canal, there are two linear extended detention swales, one adjacent to the northbound lanes and one adjacent to the southbound lanes. The linear pond adjacent to the southbound lanes, discharges stormwater into an existing canal adjacent to the southbound lanes and into the C-14 Canal. The linear pond adjacent to the northbound lanes discharges stormwater runoff east into the Pompano Service Plaza interior stormwater management system through a 36" cross drain (CD-22). Within the service plaza, there are two main stormwater ponds. The one at the southern end provides treatment and attenuation for the Turnpike southbound lanes and the southern half of the Pompano Service Plaza. The outfall for this pond is also a 36" cross drain (CD-23) the conveys stormwater from the service plaza interior system out to the west into the wetlands within the Fern Forest Nature Center. The pond at the north end provides treatment and attenuation for the Turnpike southbound lanes and the north half of the Pompano Service Plaza. The discharge from the north pond discharges to the west through a 60" cross drain (CD-24). Since the Turnpike was widened from six to eight lanes, the capacity of the Pompano Service Plaza ponds has been augmented to handle runoff from additional pavement added when additions were made to the service plaza. The only access parcel within this sub-basin is located within the service plaza itself.

As mentioned, there have been multiple improvements made to this sub-basin including the widening from six lanes to eight lanes. **Table 6-8** presents existing treatment volume within each sub-basin based on a review of the permitted water quality summary information.

Table 6-8: Water Quality Treatment Summary

Location	Required Volume (ac.ft.)	Provided Volume (ac.ft.)	Surplus (ac.ft.)	Comment
SR 7 to Toll Gantry	1.89	0.00	(-)1.89	Wet Detention
Toll Gantry to Lyons	1.78	1.81	0.03	Dry Detention
Toll Gantry to Lyons	4.35	6.02	(-) 1.67	Wet Detention
Lyons to C-14 Canal*	1.58	1.87	0.29	Dry Detention
Pompano Service Plaza	1.47	1.49	0.02	Wet Detention

* Dry detention associated with Turnpike roadway. Pompano Service Plaza and Pond are not included.

The only offsite area that contributes stormwater runoff to this sub-basin is 18.90 acres and is located adjacent to the southbound lanes between McNabb Road and SR 7. There are three excess parcels within this sub-basin. At MP 63.7, there is a narrow strip located adjacent to the northbound lanes between SR 7 and McNabb Road. However, this is likely an easement occupied by FGT. There is also an excess parcel at MP 63.8 located adjacent to the northbound lanes. However, an existing stormwater pond is already located within this parcel. The final excess parcel is located at MP 66. This is the area of the Pompano Service Plaza, but it does include two small undeveloped areas within the ramp infield area.

It is important to note that the southern part of this basin between SR 7 and the Pompano Service Plaza lies within 10,000 feet of the Ft Lauderdale Executive Airport AOA which is the airport operations area. As such, FAA Advisory Circular 150/5200-33C will have to be considered during design. Section 5.4.1.5 of the current FDOT Drainage Manual requires coordination with the District Aviation Coordinator as part of the design process.

Atlantic Boulevard to Coconut Creek Parkway

The northbound lanes discharge into an adjacent swale prior to discharging into the Broward County C-3 Canal. The C-3 Canal is located within FTE R/W and extends from the C-14 Canal up to Station 1942+00 where it turns to the east and leaves FTE R/W. There are two offsite areas totaling approximately 92 acres that are hydraulically connected to the C-3 Canal. It is unclear if the entire parcels discharge into the C-3 canal since plans showing the existing stormwater infrastructure for this offsite area could not be located.

The southbound lanes discharge stormwater into an existing borrow ditch within the existing R/W that parallels the southbound lanes south to Atlantic Boulevard. This ditch has no outfall, however stormwater in the ditch can overtop along the R/W and discharge into two existing ponds which outfall to the C-14 Canal. There was a historical outfall connection from the ditch into the C-14

Canal but it appears to have been eliminated when the Atlantic Bridge over the Turnpike was constructed. In addition to the southbound lanes, there is also a 4.30-acre offsite area that discharges runoff into the borrow ditch. The only offsite area is 3.0 acres along Coconut Creek Parkway on the west side of the interchange.

Coconut Creek Parkway to Copans Road

Stormwater runoff from the southbound lanes is conveyed into the adjacent linear swale and ultimately into the Coconut Creek Parkway interchange ponds. There are two ponds adjacent to the northbound lanes. One is an excess parcel at MP 67.9. This pond is connected to the existing pond within the loop ramp and does not appear to be part of any previously permitted stormwater management system. The stormwater runoff that collects within these ponds is conveyed to the south and east underneath the Turnpike via a 60" cross drain (CD-25) just north of Coconut Creek Parkway. It is unclear where this pipe day lights but it is likely into the existing pond within the infield area between the loop ramp and Coconut Creek Parkway. Ultimately, the stormwater runoff within the interchange discharges through a 42" cross drain (CD-26) into the C-3 Canal which reenters Turnpike R/W just north of Coconut Creek Parkway. Beneath Coconut Creek Parkway the main C-3 Canal conveyance structures are triple 66" pipes (CD-27).

Runoff from the northbound lanes discharges south and directly into the C-3 Canal. In 2019, a permit modification was issued by SFWMD for Permit No. 06-01034-S (Application No. 190806-3). The permit allowed excavation in the existing northbound swale into the C-3 Canal. The proposed improvement included a concrete ditch block that was constructed to facilitate conveyance into the C-3 Canal while maintaining historic discharges. The modification was predicated on the need to alleviate nuisance flooding in the southbound ditch and adjacent properties. The modification was predicated on the need to alleviate nuisance flooding in the southbound ditch caused by a reduction in conveyance due to other construction.

Copans Road to Sample Road

Stormwater runoff from this sub-basin is conveyed north into the Sample Road interchange. Once in the interchange stormwater runoff is conveyed to the east into the C-3 Canal via a system of interconnected ditches and pipes. There are three main cross drains within this sub-basin. A 30" pipe (CD-28) located south of the Sample Road Interchange connects the northbound and southbound conveyance ditches and appears to serve as an equalizer pipe. The other two cross drains are located within the interchange. A 36" pipe (CD-29) conveys runoff east beyond the limits of the interchange and into the system of interconnected ditches and pipes that ultimately outfall to the C-3 Canal. A 36" pipe (CD-30) conveys stormwater runoff from the west side of the interchange to the east side of the interchange.

The most important aspect of this interchange is the fact that Broward County uses the conveyance through the interchange and the connection to the C-3 Canal. Ther is a manually operated control structure located west of the loop ramp just outside FTE R/W. The ability for Broward County to continue to use that control gate and the conveyance through the interchange must be maintained in the proposed condition.

All sub-basins from Atlantic Boulevard to Sample Road were originally permitted under SFWMD Permit No. 06-01034-S (Application No. 890327-18) when the Turnpike was widened from 4-lanes to 6-lanes. The stormwater management system consists of linear swales and ditch blocks adjacent to the north and southbound lanes to provide treatment for a minimum of 2.5 inches of runoff from the new impervious area. Unlike the other basins, none of the wet interchange pond areas appear to be part of the previously permitted stormwater management system. Also, unlike the other basins, no linear stormwater systems are shown on the drainage maps or discussed in the description of the sub-basins since it is unclear from available documentation exactly where they are located or how much treatment volume was provided within each one. Also, since they will likely be impacted by the proposed improvements, some of them will be eliminated due to the proposed improvements. **Table 6-9** presents all relevant permits for this basin.

Table 6-9: List of SFWMD permit applications

Application	Permit	Date Issued
X000007462	82-0096-S	10/1982
890327-18	06-01034-S	12/1989
060509-10	06-01034-S	5/2006
060825-20	06-01909-S	10/2006
060509-10	06-01034-S	11/2006
080226-11	06-01034-S	3/2008
100602-5	06-01909-S	11/2010
120202-4	06-01909-S	2/2012
190806-3	06-1034-S	8/2019
191018-2081	06-102299-P	12/2019

6.1.6 Hillsboro Basin (Station 2061+50 to Project End)

This basin begins at Sample Road and extends to just south of Wiles Road. The stormwater runoff from both the northbound and southbound Turnpike mainline is conveyed to existing ponds located at the Sawgrass Expressway interchange and ultimately to the Hillsboro Canal. This basin was originally permitted under SFWMD Permit No. 06-01034-S (Application No.

11228-1) when the Turnpike was widened from 4-lanes to 6-lanes. The stormwater management system consists of linear swales and ditch blocks to provide treatment for the greater of 0.5-inches of runoff from the right of way or 1.25-inches of runoff from the new impervious area. There are no offsite areas or permitted drainage connections that discharge into Turnpike R/W. There are also no existing cross drains. There is one excess parcel at MP 70 adjacent to the southbound lanes between the Turnpike mainline and Tradewinds Park.

As with the previous discussion regarding the sub-basins from Atlantic Boulevard to Sample Road, none of the existing interchange ponds appear to be part of the previously permitted stormwater management system and no linear stormwater systems are shown on the drainage maps or discussed in the text since it is unclear from available documentation exactly where they are located or how much treatment volume was provided within each treatment location. Also, since they will likely be impacted by the proposed improvements, some of them will be eliminated due to the proposed improvements.

6.2 Proposed Drainage Conditions

In the proposed condition, historic drainage patterns are anticipated to be maintained for both on-site and offsite stormwater runoff. The outfall location of each basin will also remain the same as it is in the existing condition. Remnant, or excess parcels were previously discussed and any that were viable south of Atlantic Boulevard have already been converted into existing stormwater management facilities during previous corridor improvements. North of Atlantic Boulevard the remnant parcel at MP 70 will be incorporated into pond alternative analysis.

As described in section 6.1, water quality credits do exist within some of the existing dry detention swales along the corridor. However, the assumption made during this analysis is that proposed improvements will significantly impact most of these existing linear systems making it difficult to use the credits as existing compensatory treatment opportunities. Within existing permitted interchange ponds along the corridor there is an insignificant volume of treatment credit, and these ponds were assumed to remain intact along with their permitted water quality volume assuming they were not impacted by the proposed interchange improvements. Therefore, required treatment volumes have been established for each sub-basin based on the additional impervious area plus any treated impervious area associated with past improvements where appropriate (i.e. – outside existing permitted interchange ponds). However, because the SFWMD does not require treatment of the entire directly connected impervious area, treatment was evaluated using a basin-wide approach, taking advantage of available stormwater management opportunities within each sub-basin to treat as much pavement as possible. Within some of the sub-basins, the entire available pavement was treated to compensate for not treating any pavement or treating a reduced area of pavement within the other sub-basins. Specific

information related to required and provided treatment volumes as well as areas of compensatory treatment are provided in Section 8.0 of this report.

The peak stages within each pond were generally at or below existing ground and utilized approximately 1-foot of freeboard to the top of bank, especially within areas where offsite runoff was hydraulically connected to the pond. **Table 6-10** presents the lowest profile grade line (PGL) within each basin as well as the lowest edge of pavement for the mainline. The information is based on the proposed changes to the existing mainline PGL. The bottom of the base was estimated at approximately 17-inches (1.42-feet) below the low edge of travel and is also included in the same table. Interchange ramp configurations were not evaluated as these have not been fully designed from a roadway perspective.

Table 6-10: Mainline Low PGL and Low Pavement Elevations

Basin (Sub-basin)	Station	PGL Elev. (NAVD 88)	Low Travel Elev. (NAVD88)	Estimated Bottom of Base Elev. (NAVD88)
C-11/N-4 (Begin Project to I-595)	13[illegible]68	[illegible].90	7.88	6.46
NNR (I-595 to Peters)	3[illegible]60[illegible]00	11.20	9.50	8.08
C-12 (Peters to Broward)	13[illegible]5+00	12.46	10.66	9.24
C-12 (Broward to Sunrise)	149[illegible]+00	11.90	10.56	9.14
C-12 (Sunrise to Oakland Park)	[illegible]536+73	11.71	10.77	9.35
C-13 (Oakland Park to C[illegible]ial)	1616+60	12.06	11.54	10.12
C-13 (Commercial to [illegible]R 7)	1717+60	12.51	11.51	10.09
C-14 (SR 7 to Cypress C[illegible]ek)	1768+50	12.05	11.11	9.69
C-14 (Cypress Creek to Ly[illegible]s)	1772+50	11.82	10.88	9.46
C-14 (Cypress Creek to Atlantic - Pompano SB)	5860+00	15.11	14.50	13.08
C-14 (Cypress Creek to Atlantic – Pompano NB)	1857+07	14.08	13.06	11.64
C-14 (Atlantic to Coconut Creek)	5902+00	14.68	12.95	11.53
C-14 (Atlantic to Coconut Creek)	1903+00	15.46	14.86	13.44
C-14 (Coconut Creek to Copans)	1956+50	16.48	14.81	13.39
C-14 (Copans to Sample)	2060+00	16.83	15.71	14.29
Hillsboro (Sample to Wiles)	2064+04	16.26	15.26	13.84

6.2.1 C-11/N-4 Basin (1248+00 to Station 1338+00)

There is no proposed mainline widening within this basin. The worst-case proposed improvements are minimal and limited to a southbound mainline off-ramp bridge that spans the North New River Canal and ties back into the I-595 eastbound on-ramp within the I-595 interchange. These improvements will add approximately 1.31 acres of additional impervious area within the interchange. Since the existing stormwater management system is based on wet detention treatment, the same approach will be used to address treatment in the proposed condition. Further, since the existing interchange stormwater ponds will not be impacted, treatment is only considered for the additional impervious area rather than the additional impervious plus the previously treated impervious area. Opportunities considered for water quality treatment include direct and compensatory treatment of the additional impervious area with the compensatory impervious area located within the interchange.

6.2.2 North New River Basin (1338+00 to Station 1394+00)

Improvements in this basin are a continuation of the same bridge and ramp described in Section 6.2.1. The ramp bridge departs from the southbound mainline just north of I-595. The total proposed additional impervious area is approximately 2.50 acres. Since the existing stormwater management system is based on wet detention treatment, the same approach will be used to address treatment in the proposed condition. Further, since the existing stormwater pond will not be impacted, treatment is only considered for the additional impervious area rather than the additional impervious plus the previously treated impervious area. Opportunities considered include direct and compensatory treatment of the additional impervious area within the existing stormwater pond and other suitable offsite locations.

6.2.3 C-12 Basin (Station 1394+00 to Station 1607+00)

Improvements within this basin include center widening plus a westward alignment shift between Peters Road and Broward Boulevard. The westward shift allows for construction of a crowned roadway section and mitigates the existing conditions that are favorable for hydroplaning. There are also relatively minor improvements associated with the Sunrise Boulevard Interchange. The mainline widening and interchange improvements result in an increase in impervious area of approximately 19.77 acres. This area coupled with 44.40 acres of previously treated impervious area will require that treatment be provided for approximately 64.20 acres of existing and proposed impervious area. The highly urbanized land use on either side of this basin will result in the need for compensatory treatment to satisfy the permitting requirements. The westward shift of the alignment between Broward Boulevard and Sunrise Boulevard and the improvements at the Sunrise Boulevard interchange make these locations the most appropriate for utilizing compensatory treatment. Because existing treatment is accomplished using a combination of dry detention and wet detention, a similar approach will be taken in the proposed condition.

6.2.4 C-13 Basin (Station 1607+00 to Station 1753+00)

Improvements in this basin include a center mainline widening as well as significant modifications at the Oakland Park interchange and the Commercial Boulevard interchange. The mainline widening and interchange improvements result in an increase in impervious area of approximately 34.10 acres. This area coupled with 24.60 acres of previously treated impervious area results in approximately 58.7 acres of existing and proposed impervious area that will require water quality treatment. The existing land use within this basin dictates that compensatory treatment will be required to satisfy the permitting requirements. Stormwater management opportunities will be focused within the proposed interchange areas and within the abandoned golf course area surrounding the Oakland Park interchange. Wet detention is considered in both locations as this was determined to result in the worst-case scenario for stormwater management due to the water quality volume requirements and the additional attenuation required because of the Type A soils and the change in land-use from a golf course to a wet pond within the Oakland Park Boulevard interchange area. No stormwater management alternatives are proposed between the C-13 Canal and Commercial Boulevard. However, there will likely be an opportunity to salvage the existing linear extended detention system adjacent to the southbound lanes during final design.

6.2.5 C-14 Basin (Station 1753+00 to Station 2[illegible]1+50)

SR 7 to Atlantic Boulevard

Improvements within this basin include a center mainline widening as well as minor modifications at the Atlantic Avenue interchange. The mainline widening and interchange improvements result in an increase in impervious area of approximately 16.8 acres. This area coupled with 38.9 acres of previously treated impervious area results in approximately 55.7 acres of existing and proposed impervious area that will require water quality treatment. The significant development within this basin dictates that compensatory treatment utilizing the entire sub-basin will be required to satisfy the treatment requirements. However, pre vs. post peak discharge attenuation will be met for the area discharging to Canal A and for the area discharging to the C-14 Canal. Stormwater management opportunities will be focused within the proposed interchange areas at the Cypress Creek Road interchange and the Atlantic Avenue interchange as well as the Fern Forest Preserve. Wet detention is considered the most appropriate stormwater management approach since existing stormwater ponds use wet detention and because wet detention creates the worst-case scenario for generating stormwater volumes.

Atlantic Boulevard to Sample Road

North of Atlantic Boulevard, the alignment is widened and shifts to the west. There are also proposed interchange improvements at the Coconut Creek interchange and the Sample Road interchange. The mainline widening and interchange improvements result in an increase in impervious area of approximately 33.5 acres. This area coupled with 28.6 acres of previously treated impervious area results in approximately 62.0 acres of existing and proposed impervious

area that will require water quality treatment. The existing land use within this basin dictates that compensatory treatment will be required to satisfy the permitting requirements. The approach to compensatory treatment will vary depending on the alternative stormwater approach considered. Stormwater management opportunities will be focused within the proposed interchange areas at the Coconut Creek interchange and the Sample Road interchange. Wet detention is considered the most appropriate stormwater management approach since the FPID 406150 Phase II Drainage Design documentation utilized a similar design.

6.2.6 Hillsboro Basin (Station 2061+50 to Project End)

Sample Road to Wiles Road

North of Sample Road, the alignment is widened and shifts to the west. There is no interchange within this sub-basin. The mainline widening results in an increase in impervious area of approximately 8.98 acres. This area coupled with 3.45 acres of previously treated impervious area results in approximately 12.43 acres of existing and proposed impervious area that will require water quality treatment. This sub-basin is the only stand-alone section of the project within the Hillsboro Basin and does not include any sub-basins like the other basins along the corridor. Alternatives that provide the entire volume of water quality treatment required within the basin have been identified.

7 Floodplain & Environment Information

Floodplain

Project Improvements will encroach into the various interconnected floodplains adjacent to the corridor. A volumetric analysis of the impacts resulting from roadway improvements and compensation for these impacts has been included in the location hydraulic report included under separate cover with this submittal. The limits of Zone AE and Zone AH have been outlined on the drainage maps. Zone X is the only other flood zone within the vicinity of the corridor and it is typically located adjacent to the corridor beyond the limits of Zone AE and Zone AH.

The highly urbanized nature of this corridor and lack of undeveloped parcels minimizes the opportunities for offsite floodplain compensation. However, where possible offsite undeveloped areas were considered as well as available infield areas within the existing and proposed interchanges. Except for the area between Broward Boulevard and Sunrise Boulevard, two potential floodplain compensation areas were identified within each basin. It is worth noting that FTE is currently reevaluating the base flood elevation in Broward County. This new information will likely not be relevant for the PD&E study as all floodplain encroachment volumes were based on published information. However, the study results may change the approach to floodplain compensation during the design phase.

The location of the floodplain compensation sites are included on the drainage maps provided in Appendix A and a table presenting the alternatives along with the preferred is included in the Location Hydraulics Report which is under separate cover. Floodplain encroachment calculations are included in **Appendix C**.

Environment

The following paragraphs briefly describe the anticipated environmental impacts for each basin. Some of the larger basins have been broken into small sub-basins for ease of discussion.

Wetlands – Because of the highly urbanized nature of the corridor, there are only two locations where proposed stormwater or floodplain compensation alternatives impact existing wetlands. The Fern Forest area is almost entirely wetlands and is located just south of the C-14 Canal within the C-14 Basin. Alternative pond sites 1B, 1C, 2A and 2B are all located completely within this wetland area. In addition, alternative floodplain compensation sites 1 and 2 are also located completely within the wetland area. Further north, the Tradewinds Park area also has significant wetland areas and is located just north of Sample Road within the Hillsboro Basin. Alternative pond site 1 is located within this wetland area. There are no floodplain compensation sites proposed for this location.

Other Surface Waters – Based on the information included within the Natural Resources Evaluation (NRE) every wet area along the corridor is classified as Other Surface Waters. Since many of the proposed stormwater alternatives utilize existing ponds or lakes, there are many other surface water impacts. The greatest occurs within the existing interchange areas including the I-595 interchange, C-12 interchange, Cypress Creek interchange, Coconut Creek interchange and the Sample Road interchange.

Listed Species – The project corridor does not fall within the USFWS designated critical habitat for any species. Based on a review of the NRE, the proposed improvements are expected to have No Effect on any listed species except for the Florida Bonneted Bat, Wood Stork and Eastern Indigo Snake. The effect on the Florida Bonneted Bat and the Eastern Indigo Snake are expected to be Low, and the effect on the Wood Stork is expected to be Moderate.

Cultural Resource Analysis – Based on a review of the Cultural Resource Assessment Survey, there are no archeological sites or historic resources impacted by the proposed stormwater or floodplain compensation alternatives.

Contamination – Contamination rankings vary throughout the corridor between Low, Medium, and High. All pond sites were ranked as low or medium from the beginning of the project up to the Sample Road interchange which is located within the C-14 Basin. The infield area within the interchange incorporates pond alternatives 1B and 2C. Between Sample Road and Wiles which is in the Hillsboro Basin, all pond sites were ranked as high. High rankings along the project corridor are likely due to their proximity to the existing landfill located adjacent to the northbound lanes between Sample Road and Wiles Road.

With respect to floodplain compensation sites, the rankings were similar with Low and Median rankings throughout the corridor except at the north end from the Sample Road interchange to Wiles Road. The only caveat is at the southern end of the project in the C-11/N-4 Basin between Griffin Road and the I-595 interchange. Within this basin, FPC-2 is ranked as high for contamination. This area is located just west of the I-595 interchange. Other than that, FPC-1C and 2C within the Sample Road interchange are also ranked high as well as FPC-1 and FPC-2 at the north end of the project near Wiles Road.

A summary of the information discussed herein is included on the pond and floodplain evaluation matrices.

8 Stormwater Ponds

At least two and where possible three alternative stormwater concepts or scenarios have been developed for each basin and are described in the following sub-sections. In all basins, pond sizing was based on volumetric calculations for presumptive treatment and the 25-year/72-hour storm event for attenuation within each sub-basin associated with the major basins. Treatment volumes were calculated using the additional impervious area plus any existing impervious area for which permitted treatment has already been provided. Attenuation volumes were calculated using the impervious area difference between the existing condition today and the PD&E proposed improvements. Additional attenuation was calculated between Peters Road and the C-14 Canal using the pre-developed condition that existed prior to the mainline expansion which was completed around 2010 as well as other ancillary improvements that may have been constructed since that time. Adding this additional attenuation was determined to be appropriate since it was assumed that most of the existing linear detention systems associated with previously constructed improvements would be impacted by the PD&E proposed improvements. This approach allowed an approximation of the existing permitted attenuation volume that could be added to the attenuation volume required for the PD&E proposed improvements. A similar approach was taken North of the C-14 Canal, and attenuation volumes were calculated using the impervious area difference between the existing condition today and the PD&E proposed improvements. However, unlike that area south of the C-14 Canal, no permitted attenuation existed prior to this PD&E study so no additional attenuation was added in the proposed condition. Pond areas shown in the calculations are smaller than the areas shown on the drainage maps. This is because the ponds were graphically sized using MicroStation starting with the area required for treatment and attenuation and adding appropriate widths and associated area for pond berms.

Shallow seasonal high water table elevations and the historic approach to stormwater management along the corridor dictated wet detention as a basis for interchange or offsite pond sizing in most instances. One exception to this is the dry detention swales proposed as pond siting alternatives between Peters Road and Sunrise Boulevard. Dry detention systems are also recommended between Sample Road and Wiles Road where there will be a shared use alternative and two offsite alternatives that require a shallow bottom to accommodate allowable downstream discharge elevations. Within all major basins, the most conservative alignment and interchange alternative within the limits of each sub-basin area were considered. However, for presentation purposes, the preferred alignment and interchange alternative are illustrated on the proposed drainage maps presented in Appendix A. Pond sizing calculations which present sub-basin information on how compensatory treatment is provided are included in **Appendix B**.

Alternative pond site locations focused on existing and proposed interchange areas as well as offsite parcels and remnant parcels. Since most of the overall basins consisted of multiple sub-basins as described previously, and because it was assumed for the purpose of this evaluation

that many of the existing ponds and extended linear detention systems would be impacted by the proposed PD&E improvements, it was not possible to identify a single area where a pond could be located and sized to accommodate the treatment and attenuation volume required for the entire basin within the existing R/W. As a result, this evaluation focused on developing offsite and interchange alternative stormwater management scenarios within each basin. These scenarios identified stormwater opportunities within each sub-basin that could be paired together to accommodate the required treatment and attenuation volumes for the entire basin using compensatory treatment techniques. The exceptions to this approach were the C-11, North New River and Hillsboro Basin.

Ultimately, there may be available space for linear stormwater management systems along the corridor outside of the interchanges but within the existing R/W that was not considered for this evaluation. However, that level of detail has been left for final design once the PGL has been finalized and the location of signage and other roadway features have been established. At the PD&E stage, focusing on interchange and offsite parcels results in a more conservative approach to pond siting.

8.1 C-11/N-4 Basin (Station 1248+00 to Station 1338+00)

This basin extends from the beginning of the project to I-595. Within this basin there are multiple existing stormwater ponds and a linear extended detention system located south of I-595 and adjacent to the northbound lanes. In the worst case scenario, the proposed improvements are limited to a southbound mainline off-ramp bridge that spans the North New River Canal and ties back into the I-595 eastbound on-ramp within the I-595 interchange. The proposed improvements include 1.31 acres of additional impervious area within the interchange which equates to approximately 1.06 acre-feet of treatment and attenuation volume. Three pond alternatives were considered for this basin.

Alternative 1 is the existing permitted pond system within the I-595 interchange. This stormwater management system is also owned by FDOT. The total existing pond surface area is approximately 33.18 acres. However, the slightly smaller area used in the calculation was based on the values used in the I-595 Design Build project. The results show that the increase in stage would be minimal if this alternative is used as preferred. As described in Section 6.0, within this permitted interchange system there are approximately 11.30 acres of excess permitted treatment volume. There is also a 5.67-cfs of attenuation credit based on the drainage documentation for the I-595 Corridor Improvement Project (Zone 8A). This alternative allows two options for handling the required treatment and attenuation volume. Option 1 would utilize the treatment and attenuation credit that already exists within the interchange. If the credits are utilized by another project in the future, the second option is to stack the required treatment and attenuation volume on top

of the existing peak stage with a slight modification to the outfall control structure. The increase in peak stage that results from the volume stacking is negligible as shown in the calculations.

Alternative 2 is the existing borrow pit adjacent to the southbound lanes just south of the I-595 interchange which is owned by FDOT. Within this borrow pit which is already a permitted stormwater management facility. The area of the borrow pit has been estimated on the existing drainage maps at 40.71 acres. However, the slightly smaller area used in the calculation was based on the values used in the I-595 Design Build project. The intent is to demonstrate that the increase in stage would be minimal if this alternative is used as preferred. The required treatment and attenuation volume would be stacked on top of the existing peak stage and the outfall structure would be modified to accommodate the additional storage. The increase in stage resulting from the additional volume is negligible as shown in the calculations.

Alternative 3 would utilize parcels adjacent to the ramp improvements in the southwest quadrant of the interchange. This alternative would impact two businesses closest to the interchange and require a total take of both parcels. This would result in approximately two acres of available R/W that could be utilized to provide treatment and attenuation for 1.30 acres of additional impervious area.

If the preferred alternative interchange improvement, also known as the practical alternative, is ultimately accepted, these two parcels would not be impacted. However, the required treatment and attenuation volume would be reduced to less than 0.10-ac.ft. which could easily be accommodated by utilizing the available treatment and attenuation credits, or by slight modifications to the existing outfall control structures within Alternative 1 and Alternative 2.

The nature of the proposed PD&E improvements and the available storage within existing ponds along with the worst-case insignificant increase in peak stage suggests that base clearance will not be an issue.

8.2 North New River Basin (Station 1338+00 to Station 1394+00)

This basin extends from I-595 to Peters Road. Within this basin there is a large existing triangular pond located in the northwest quadrant of the interchange that accepts runoff from the entire basin as well as offsite areas prior to discharging into the North New River Canal. The proposed improvements will increase the existing impervious area by 2.50 acres which equates to approximately 1.43 acre-feet of treatment and attenuation volume. Within this basin, two stormwater management scenarios have been developed. Similar to the previous basin, smaller footprint areas than what actually exist were used in the calculations to be conservative and to demonstrate that the increase in stage would be minimal if either one of these alternatives were considered preferred.

Alternative 1 is the existing permitted triangular pond which has a total surface area of approximately 14.20 acres. As described in Section 6.0, this pond is owned by FDOT and has approximately 2.13 acre-feet of excess permitted treatment volume. However, there does not appear to be any type of attenuation credit based on the drainage documentation for the I-595 Corridor Improvement Project (Zone 8B). Alternative 1 would utilize the existing treatment credits and stack the required attenuation volume on top of the peak stage which would require a slight modification to the outfall control structure. It is worth repeating that the North New River Canal is tidally influenced, and it may be possible to eliminate the need for attenuation during the design phase. With a required attenuation volume of approximately 0.90 acre-feet, this would result in a peak stage increase of approximately 0.07 feet. If the available treatment credits are utilized by another project in the future, the entire treatment and attenuation volume of 1.43 ac-ft could be stacked on top of the permitted peak stage which would result in an overall stage increase of approximately 0.10-feet.

With respect to the offsite area from which stormwater runoff is conveyed into the pond, there does not appear to be any type of adverse stage impact resulting from the proposed increase in existing pond stage. This is based on a review of the offsite survey and LiDAR data. A review of the existing design and permit information also suggests that a minor increase in pond stage of 0.15-feet will not cause adverse impacts. This is further corroborated by a review of the permitted peak stage in the pond based on the 2010 as-built plans (FPID 40604-1-52-01) which was set at elevation 4.57-feet NAVD88 for the 25-year/72-hour frequency storm event. The revised peak stage based on the I-595 corridor improvements is set at elevation 5.85-feet NGVD29 which equates to an elevation of approximately 4.25-feet NAVD88. Adding 0.15-feet to elevation 4.25-feet NAVD88 changes the current peak stage to 4.40-feet NAVD88 which is still slightly less than the originally permitted peak stage of 4.57-feet. The reduction in peak stage from the 2010 as-built plans could be attributed to several variables including more accurate stage storage information to slightly different contributing CN values or longer Tc values.

Alternative 2 is the existing ski lake adjacent to the northbound lanes in the northeast quadrant of the interchange. The surface area of this lake is approximately 35 acres and was considered as an alternative pond site within the Pond Siting Report developed for the FPID 40604-1-52-01 project. Evenly distributing the required 1.43 ac-ft across the surface area of this pond results in a stage increase of approximately 0.04 feet which can be considered negligible. Base clearance is not expected to be a concern for either alternative because the bottom of the roadway base is approximated at 8.08 ft-NAVD88 for the turnpike mainline travel lanes.

8.3 C-12 Basin (Station 1394+00 to Station 1607+00)

This basin extends from Peters Road to Oakland Park Boulevard. Within this basin, two alternative stormwater management scenarios were considered. The nomenclature for each stormwater management footprint as well as the sub-basin location within the overall scenario is presented below for clarification and proposed drainage map review

- Alternative Scenario 1
    - Existing Linear SMF (Peters to Broward) – FDOT Owned
    - Pond Alternative 1A (Broward to Sunrise) – FDOT Owned
    - Pond Alternative 1B (Sunrise to Oakland Park) – FDOT Owned
    - Interchange Areas A thru E (Sunrise to Oakland Park) – FDOT Owned

- Alternative Scenario 2
    - Existing Linear SMF (Peters to Broward) – FDOT Owned
    - Pond Alternative 2A (Broward to Sunrise) – *Appears to be FDOT Owned
    - Pond Alternative 2B (Sunrise to Oakland Park) – FDOT Owned
    - Interchange Areas A thru E (Sunrise to Oakland Park) – FDOT Owned

*The Asterisk above means that the Broward County Property Appraiser website did not specifically identify an owner which often means that the parcel is owned by FDOT.

Table 8-1 and **8-2** present the required treatment and attenuation for each scenario.

Table 8-1: Alternative Scenario 1

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
Peters to Broward	Existing Linear SMF (Dry)	2.65	3.80	0.99	1.00
Broward to Sunrise	Alternative 1A (Dry)	2.75	3.90	0.00	0.00
Sunrise to Oakland	Alternative 1B (Wet)	3.90	1.90	9.24	15.6
Sunrise to Oakland	Interchange Areas A thru E (Wet)				
	Total	9.30	9.60	10.23	16.6

Table 8-2: Alternative Scenario 2

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
Peters to Broward	Existing Linear SMF (Dry)	2.65	3.80	0.99	1.00
Broward to Sunrise	Alternative 2A (Dry)	2.75	3.90	0.00	0.00
Sunrise to Oakland	Alternative 2B (Wet)	3.90	1.90	9.24	15.6
Sunrise to Oakland	Interchange Areas A thru E (Wet)				
	Total	9.30	9.60	10.23	16.6

Since there is almost no undeveloped offsite area within the basin, the number of available scenarios and associated stormwater management footprint locations is very limited. As a result, all but one of the available areas identified within the tables were utilized in both scenarios. The existing linear SMF which is utilized in both scenarios is located within the Peters Road to Broward Boulevard sub-basin. It is a permitted system that should be minimally impacted by the proposed improvements because the existing alignment has been shifted to the west in the proposed condition to allow a crowned typical section. This is the only permitted system within this sub-basin and the surrounding area is 100% developed as a residential subdivision, a golf course associated with the Peel-Dixie Wellfield and a public walking park. Therefore, it was utilized in both scenarios. Using this existing system to accommodate the proposed PD&E improvements will require an increase in the peak stage to elevation 7.60 ft-NAVD88 which is approximately one foot below existing top of bank. The treatment stage will be approximately 6.50 ft-NAVD88 and the lowest bottom of base elevation for the mainline has been approximated at 9.24 ft-NAVD88.

Alternative 1A and 2A are two separate alternatives located between Broward Boulevard and Sunrise Boulevard. Alternative 1A is located adjacent to the northbound lanes within the existing R/W and is made possible by the significant western shift of the mainline to allow a crowned typical section. Alternative 2A is located within the existing Florida Power & Light easement. Part of which may be partially owned by FTE, but this would be confirmed during design. The peak stage in Alternative 1A is set at elevation 8.0 ft-NAVD88 with a treatment elevation of 6.90 ft-NAVD88. The peak stage in Alternative 2A is set at elevation 6.0 ft-NAVD88 with a treatment elevation of approximately 3.80 ft-NAVD88. The lowest mainline bottom of base elevation is approximated at 9.14 ft-NAVD88.

Between Sunrise Boulevard and Oakland Park Boulevard, there are no undeveloped offsite parcels available for pond sites near the C-12 Canal sub-basin outfall. Except for a small amount of green space and a lake that is on property occupied by the Broward County Finance, and an athletic field owned by Broward County School Board all other offsite R/W is occupied by residential communities. Even the Broward County property is located toward the middle to upper end of the sub-basin. The only opportunity for stormwater management exists within the Sunrise Boulevard interchange infield areas. Alternative 2A and 2B as well as Interchange area A thru area E are located within the reconfigured interchange and are utilized in both scenarios. In the existing condition, the interchange already incorporates a permitted pond that interconnects both loop ramps. To accommodate the PD&E improvements, the existing infield wet detention ponds will be expanded using space made available by the proposed interchange configuration. This expansion will eliminate the existing law enforcement complex located within the larger loop ramp. There are also FPL utility poles within the interchange, but the pond shape has been configured to avoid impacts. Because the existing permitted pond accepts runoff from offsite residential areas, the peak stage has been established at elevation 6.0 ft-NAVD88 which is at or

below the currently permitted peak stage. The mainline bottom of base elevation is approximately 9.35 ft-NAVD88.

8.4 C-13 Basin (Station 1607+00 to Station 1753+00)

This basin extends from Oakland Park Boulevard to SR 7. Within this basin, three alternative stormwater management scenarios were considered. The nomenclature for each stormwater management footprint as well as the sub-basin location within the overall scenario is presented below for clarification and proposed drainage map review.

- Alternative Scenario 1
    - Pond Alternative 1A (Oakland Park to Commercial)
    - Pond Alternative 1B-1 (Commercial to SR 7)
    - Pond Alternative 1B-2 (Commercial to SR 7)

- Alternative Scenario 2
    - Pond Alternative 2A (Oakland Park to Commercial)
    - Pond Alternative 2B-1 (Commercial to SR 7)
    - Pond Alternative 2B-2 (Commercial to SR 7)

- Alternative Scenario 3
    - Pond Alternative 3A (Oakland Park to Commercial)
    - Pond Alternative 3B (Commercial to SR 7)

Table 8-3, 8-4 and **8-5** present the required treatment and attenuation for each scenario.

Table 8-3: Alternative Scenario 1

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
Oakland to Commercial	Alternative 1A (Wet)	5.71	8.6	11.93	25.70
C-13 to Commercial	NA	4.88	0.0	6.10	0.0
Commercial to SR 7 (So)	Alternative 1B (1B-1) (Wet)	1.43	3.50	3.24	9.70
Commercial to SR 7 (No)	Alternative 1B (1B-2) (Wet)				
	Total	12.02	12.1	21.27	35.4

Table 8-4: Alternative Scenario 2

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
Oakland to Commercial	Alternative 2A (Wet)	5.71	8.90	11.93	25.40
C-13 to Commercial	NA	4.88	0.0	6.10	0.0
Commercial to SR 7	Alternative 2B (2B-1) (Wet)	1.43	3.20	3.24	6.10
Commercial to SR 7	Alternative 2B (2B-2 (Wet)				
	Total	12.02	1210	21.27	31.5

Table 8-5: Alternative Scenario 3

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
Oakland to Commercial	Alternative 3A (Wet)	5.71	8.90	11.93	25.70
C-13 to Commercial	NA	4.88	0.0	6.10	0.0
Commercial to SR 7	Alternative 3B (Wet)	1.43	4.1	3.24	6.4
	Total	12.02	12.70	21.27	32.10

Where there is a deficit between the provided treatment volume and required treatment volume, the post development calculations included in Appendix B demonstrate that there is more than enough available impervious area that can be treated within the basin to account for this deficit within the other sub-basins.

There is no undeveloped area south of Commercial Boulevard and north of Commercial Boulevard there is only a single undeveloped parcel in the northwest quadrant of the interchange. However, the existing Inverrary golf course south of the C-13 Canal is no longer in use and is proposed as the area that will accommodate the proposed Oakland Park interchange improvements. This is also an area where pond alternatives will be proposed to provide stormwater management for the section of the C-13 basin south of Commercial Boulevard. This will include the area between Rock Island Road and the Turnpike mainline which is owned by FDOT and will be utilized for the proposed interchange improvements as well as alternative pond locations. Because the C-13 Canal flows perpendicular to the mainline within this section, compensatory treatment will be used to meet the required water quality treatment volume. Elevation 8.0 ft.-NAVD88 is the average existing ground elevation within the area of the golf course. For the purposes of this analysis, this elevation was also used at the top of bank elevation since there was more than enough available area within the infield of the proposed Commercial Boulevard interchange. Elevation 7.0 ft-NAVD88 was the peak stage elevation used in the pond and the treatment elevation was set at elevation 4.0 ft-NAVD88. It is likely that the pond footprint can be reduced, or stage increased once interchange ramp elevations are finalized, but for the purposes of this analysis base clearance

is not expected to be an issue with the mainline bottom of base elevation approximated at 10.12 ft-NAVD88.

Due to concerns described previously regarding offsite flooding in the northwest area of the Commercial Boulevard interchange it is appropriate to identify a second stormwater management facility north of the interchange to support the stormwater management facility south of the interchange. Scenario 1 and Scenario 2 utilized the interchange loop ramp. However, the available area within the loop ramp is not large enough to accommodate the entire need for treatment and attenuation. Scenario 1 will utilize two separate pond footprint areas identified as Alternative 1B-1 and 1B-2 but they will not be hydraulically connected. Scenario 2 will also include two separate pond footprint areas identified as Alternative 2B-1 and 2B-2 which will be hydraulically connected. Scenario 3 utilizes the undeveloped parcel in the northwest quadrant of the interchange that has been identified as the future site of a local park by the surrounding community. It is worth noting that the existing permitted pond already located within this interchange was not considered for this evaluation and the pavement associated with it has been noted in the summary tables but removed from the actual analysis making the existing treated pavement area less than it otherwise would be. The existing ground considered for pond site north of Commercial Boulevard is generally around elevation 7.0 ft.-NAVD88. This elevation was also used as the existing top of bank of the ponds. The maximum peak stage utilized within each of these pond sites was elevation 6.0 ft-NAVD88 due to the concern about impacting offsite properties which may have to be routed through these pond alternatives during design. The peak stage in the existing permitted pond within the Commercial Blvd. interchange is 6.24 ft-NAVD88 and this pond is permitted to route offsite runoff through it. The turnpike mainline bottom of base elevation has been approximated at 10.12 so base clearance is not expected to be an issue.

8.5 C-14 Basin (Station 1753+00 to Station 2061+50)

This basin extends from SR 7 to Sample Road. The C-14 Canal intersects the corridor within this basin near the halfway point and for the purposes of pond siting alternatives and supporting evaluation, this basin has been split into two sub-basins. The southern sub-basin starts at SR 7 and extends north to the C-14 Canal. The northern sub-basin extends from the C-14 Canal to Sample Road.

SR 7 to C-14 Canal

This basin extends from SR 7 to the C-14 Canal. Within this basin, two alternative stormwater management scenarios were considered. The nomenclature for each stormwater management footprint as well as the sub-basin location within the overall scenario is presented below for clarification and proposed drainage map review.

- Alternative Scenario 1
    - Pond Alternative 1A-1 (Cypress Creek to Lyons Road (South)) – FDOT Owned

  - Pond Alternative 1A-2 (Cypress Creek to Lyons Road (South)) – FDOT Owned
  - Pond Alternative 1B (Cypress Creek to Lyons Road (North))
  - Pond Alternative 1C (South Pompano Service Plaza) – FDOT Owned
  - Pond Alternative 1D (North Pompano Service Plaza) – FDOT Owned

- Alternative Scenario 2
  - Pond Alternative 2A (SR 7 to Lyons Road)
  - Pond Alternative 2B (North Pompano Service Plaza)

The sub-basin identified as Cypress Creek to Lyons Road (South) represents the section of the corridor between SR 7 and the mid-point of the old toll gantry location. The sub-basin Cypress Creek to Lyons Road (North) represents the section of the corridor between the mid-point of the old gantry location and Lyons Road.

Table 8-6 and **Table 8-7** present the required treatment and attenuation for each scenario.

Table 8-6: Alternative Scenario 1

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
SR 7 to Lyons (South)	Alternative 1 (1A-1) (Wet)	1.96	6.90	7.38	11.60
	Alternative 1 (1A-2) (Wet)	4.63			
Cypress Creek to Lyons (North)	Alternative 1B (Wet)	3.35	4.0	3.53	7.50
South Pompano Service Plaza	Alternative 1C (Wet)	1.66	1.74	5.02	12.00
North Pompano Service Plaza	Alternative 1D (Wet)	1.61	1.61	2.80	2.80
	Total	13.21	13.76	18.73	33.90

*Note: Alternative 1D is a joint use facility that will be utilized in conjunction with expanded truck parking stormwater management. Coordination has occurred with the Consultant conducting the analysis and the expected increase in impervious area has been provided to them.

Table 8-7: Alternative Scenario 2

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
SR 7 to Cypress Creek	Alternative 2A	1.96	9.90	10.91	24.30
Cypress Creek to Lyons		7.97			
Pompano Service Plaza (North and South)	Alternative 2B	3.27	3.40	7.82	14.30
	Total	13.21	13.30	18.73	38.60

Within this sub-basin of the larger C-14 basin, most of the adjacent offsite R/W is developed except for the Fern Forest Nature Center. There is also an undeveloped area south of Cypress Creek Road, but most of this belongs to the City of Ft. Lauderdale and is part of the Prospect wellfield. Pond Alternatives 1A-1 is located within the proposed Cypress Creek interchange loop ramp. The loop ramp will be constructed on top of an existing permitted pond and the area inside the loop ramp will be utilized for this pond alternatives. Pond alternative footprint 1A-2 is located on a parcel owned by FDOT which is behind the fence that surrounds the Prospect wellfield. The other pond alternatives are located north of the Cypress Creek interchange within the Fern Forest Nature Center except for alternative footprint 1D which is located within R/W owned by FDOT between the ramps at the north end of the service plaza. The ramps connect the mainline to Atlantic Boulevard and this area will be a joint-use pond with the runoff from the proposed service plaza expanded truck parking plaza. The maximum treatment elevation is set at 6.5 ft-NAVD88 for the alternative pond components located south of Cypress Creek. The bottom of the base between SR 7 and Lyons Road is estimated at elevation 9.46 ft-NAVD88. Between Lyons Road and the C-14 Canal, the lowest base elevation is estimated at 7.64 ft-NAVD88. The highest treatment stage of any of the alternative pond components in this area is set at elevation 7.0 ft-NAVD88.

Within the service plaza, there are two existing ponds and several shallow linear swales. The existing pond at the north end of the service plaza will be moved to the area north between the ramps and augmented as necessary to handle stormwater runoff from the expanded truck parking as well as the proposed PD&E improvements that will be located along the turnpike mainline at the north end of the plaza. The existing pond at the south end of the plaza was not utilized for this evaluation even though the existing gantries will be moved, and the pond could be made slightly larger. This is because of an existing connection into the pond from a linear swale located between the turnpike southbound lanes and Lyons Road. The invert of the pipe that connects the linear swale to the southern pond, enters the pond several feet below the existing pond bottom in a sumped condition. The top of bank of the linear swale and the adjacent low edge of pavement along Lyons Road control the allowable peak stage in the southern pond. To significantly raise the peak stage in the southern pond it would be necessary to route the linear swale to the north and into the C-14 Canal, or into Pond 1D. However, since it is unclear exactly what the peak stage of Pond 1D will be in the future condition and since rerouting the linear swale would require more than 1,000 linear feet of outfall pipe, it was determined that a more detailed evaluation of this potential arrangement could be made during design.

C-14 Canal to Sample Road

This basin extends from the C-14 Canal to Sample Road. Within this basin, two alternative stormwater management scenarios were considered. The nomenclature for each stormwater management footprint as well as the sub-basin location within the overall scenario is presented below for clarification and proposed drainage map review.

- Alternative Scenario 1
  - Pond Alternative 1A-1 (Coconut Creek Parkway to Copans Road) – FDOT Owned
  - Pond Alternative 1A-2 (Coconut Creek Parkway to Copans Road) – FDOT Owned
  - Pond Alternative 1B (Copans Road to Sample Road) – FDOT Owned

- Alternative Scenario 2
  - Pond Alternative 2A (C-14 Canal to Coconut Creek Parkway) – FDOT Owned
  - Pond Alternative 2B-1 (Coconut Creek Parkway to Copans Road) – FDOT Owned
  - Pond Alternative 2B-2 (Coconut Creek Parkway to Copans Road) – FDOT Owned
  - Pond Alternative 2C (Copans Road to Sample Road) – FDOT Owned

Table 8-9 and **8-10** present the required treatment and attenuation for each scenario. Alternative 1A-1 is located within the Coconut Creek interchange and Alternative 1A-2 is located just outside the interchange on a parcel owned by FDOT. Although not adjacent to each other, for the purposes of this analysis these parcels will be considered hydraulically connected and have matching treatment and attenuation elevations based on the volumetric evaluation. As such, they were evaluated together as a single unit. They only have different nomenclature for ease of review.

Table 8-8: Alternative Scenario 1

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
C-14 Canal to Coconut	N/A	5.10	0.00	5.54	0.00
Coconut to Copans	Alternative 1 (1A-1) (Wet)	4.80	6.60	3.70	14.60
Coconut to Copans	Alternative 1 (1A-2) (Wet)				
Copans to Sample	Alternative 1B (Wet)	3.02	7.00	2.69	28.80
	Total	12.92	13.60	11.93	43.4

Table 8-9: Alternative Scenario 2

Location	Component	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
C-14 to Coconut	Alternative 2A (Wet)	5.10	1.40	5.54	7.60
Coconut to Copans	Alternative 2B (2B-1) (Wet)	4.80	5.10	3.70	16.10
Coconut to Copans	Alternative 2B (2B-2) (Wet)				
Copans to Sample	Alternative 3C (Wet)	3.02	7.0	2.69	28.80
	Total	12.92	13.50	11.93	52.5

Where there is a deficit between the provided treatment volume and required treatment volume, the post development calculations included in Appendix B demonstrate that there is more than enough available impervious area that can be treated within the basin to account for this deficit within the other sub-basins. Between the C-14 Canal and Sample Road, the maximum treatment elevation for any alternative within any scenario is approximately 8.0 ft-NAVD88. The lowest estimated bottom of base elevation is 11.53 ft-NAVD88.

8.6 Hillsboro Basin (Station 2061+50 to Project End)

This basin extends from Sample Road to the end of the project at Wiles Road. Within this basin, three alternative stormwater management ponds were considered. Alternative 1 consists of a linear extended detention system adjacent to the southbound lanes. Within this area, R/W shared between FTE and Tradewinds Park will be utilized to the benefit of both stakeholders. Stormwater runoff from the mainline will be treated in the swale and then discharged into the Tradewinds Park R/W. The existing wetlands within the park will provide the necessary attenuation before the runoff is discharged to the north underneath Wiles Road and ultimately into the Hillsboro Canal. Because of the proposed ramp associated with the Sample Road interchange this alternative will consist of two footprint areas labeled as Pond Alternative 1-1 and 1-2 on the corresponding drainage map. Both sites will be hydraulically connected and are presented as a single entity in **Table 8-11**.

Table 8-10: Alternative 1

Alternative	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
Alternative 1 (Dry)	1.94	2.1	4.02	5.30

Alternative 2 and Alternative 3 are located at the north end of the project limits on either side of Wiles Road within currently undeveloped parcels. **Table 8-12** presents the treatment and attenuation information for this basin. The maximum peak treatment stage identified within any of the alternatives is approximated at 11.25 ft-NAVD88. The bottom of the base is estimated at 13.84 ft-NAVD88.

Table 8-11: Alternative 2 and Alternative 3

Alternative	Required Treatment Volume (ac.ft.)	Provided Treatment Volume (ac.ft.)	Required Attenuation Volume (ac.ft.)	Provided Attenuation Volume (ac.ft.)
Alternative 2 (Dry)	1.94	2.0	4.02	4.1
Alternative 3 (Dry)	1.94	2.1	4.02	4.30

Because stormwater runoff flows north in the existing condition to the Sawgrass Expressway interchange, using that interchange to provide the requisite stormwater management for this sub-basin was also considered for the analysis. However, coordination with the consultant for the on-going PD&E study indicated that there was no room for treatment or unattenuated flow in conjunction with the proposed Sawgrass interchange improvements.

9 Results

The analysis presented in this report identified potential pond sites based on recent aerials and other preliminary data. Once appropriate pond footprint locations were identified, two or three stormwater management alternatives or scenarios were developed using various available parcels within each sub-basin. To the extent possible, available space was considered within each interchange and undeveloped offsite areas since there are no regional facilities along the corridor and since no joint-use opportunities were identified during the ELA process.

Selection data that was considered when evaluating a preferred alternative included construction costs which were estimated as a unit cost per acre for clearing and grubbing and a unit cost per acre for excavation. The unit cost per acre for excavation was developed by calculating the cubic yards of dirt over one acre of excavation to a depth of approximately six feet. The unit costs are based on the FDOT historical cost averages for clearing and grubbing per acre and regular excavation per cubic yard then converted to acres as described above. Utilities, ease of maintenance and aesthetics were also considered. The two most significant utilities along the corridor are the Florida Gas Transmission (FGT) gas mains located adjacent to the northbound lanes that run almost the entire length of the corridor. The other major utility along the corridor is the high-powered electrical lines that run mostly along the southern half of the corridor up to just north of the Sunrise Boulevard interchange. The identified pond alternatives avoid any encroachment into the FGT specified width. One of the pond alternatives and two of the floodplain compensation alternatives are located within the adjacent transmission line easements. Aesthetics was considered but was not specifically factored into the analysis due to the limited available area within the corridor. During the design phase there should be opportunities within the Oakland Park Interchange, the Coconut Creek Interchange and the Sample Road interchange to consider pond aesthetics during the design phase.

A pond matrix was created for each alternative or scenario within each basin and is provided in **Appendix D**. Scenarios that could be constructed within the FDOT owned R/W or on undeveloped parcels were considered preferred. Infield areas associated with proposed interchanges were considered FDOT owned since these locations will be available if the proposed interchange is constructed.

C-11/N-4 Basin

Within this basin three pond alternatives were evaluated. Alternative 1 is the permitted existing I-595 interchange pond system. Alternative 2 is the existing FDOT borrow pit which is also permitted as a stormwater management system. Alternative 3 is the only offsite alternative that is not already considered FDOT R/W. Based on the analysis, Alternative 1 is preferred because of the location of the minimal additional impervious area that will be added to this basin relative to the I-595 interchange. Additionally, the stormwater management ponds within the interchange are very

large, already permitted and include available treatment and attenuation credit. Alternative 2 could follow as a second choice, as this alternative is also an FDOT permitted pond. Alternative 2 was not selected as the preferred alternative because using this alternative would require shifting the runoff flow path of existing pavement sections. Since both the first and second choice for preferred pond alternatives were located within FDOT R/W, no other factors were considered in the selection of the preferred alternative within this basin.

North New River Basin

Within this basin, two pond alternatives were considered due to the dense residential areas on either side of the mainline. Alternative 1 is the permitted triangular pond in the northwest quadrant of the I-595 interchange and already includes the requisite treatment volume credit. Alternative 2 is the ski lake adjacent to the northbound lanes. Alternative 1 is the preferred alternative because it is owned by FDOT and permitted for treatment and attenuation. Further the requisite treatment and attenuation volume are minimal and could easily be incorporated into the current pond design. The power easement located to the east of the Turnpike mainline was not considered as an alternative due to its distance from the mainline and the need to cross the FGT specified width which could be accomplished but is not necessary. Because the preferred alternative is an existing FDOT pond, no other factors were considered in the selection of the preferred alternative within this basin.

C-12 Basin

Two stormwater management scenarios were evaluated within this basin. Scenarios were developed rather than single pond sites due to the length of the basin the lack of undeveloped offsite R/W. Based on the analysis, Scenario 1 is the preferred alternative since all stormwater management can be accomplished within the existing R/W. Scenario 2 is very similar to Scenario 1 except that the area proposed for stormwater management between Broward Boulevard and Sunrise Boulevard is located within the existing power easement adjacent to the northbound lanes. No other factors were considered in the analysis of each scenario.

C-13 Basin

Three stormwater management scenarios were evaluated within this basin. Each scenario relied upon splitting the basin at Commercial Boulevard and identifying a pond alternative to handle the stormwater management needs at the southern end of the basin and at the northern end. The infield area of the proposed Oakland Park Boulevard and the adjacent golf course were key in identifying stormwater management alternatives south of Commercial Boulevard. North of Commercial Boulevard, each stormwater management alternative was located near the Commercial Boulevard interchange since all stormwater runoff flows from north to south starting at SR 7. Based on the pond siting analysis Scenario 1 is the preferred alternative because all stormwater management between Oakland Park Boulevard and Commercial Boulevard can be

handled within the proposed Oakland Park interchange infield area. North of Commercial Boulevard, the pond site associated with Scenario 1 is located within a residential community just north of the interchange and includes the area within the adjacent loop ramp.

Scenario 2 and Scenario 3 were not considered because each relied on locating the pond footprint north of Commercial Boulevard on residential housing or on community property earmarked for a future park.

C-14 Basin

For the purposes of this pond siting evaluation, the C-14 basin was separated into the area of the basin south of the C-14 Canal (SR 7 to the C-14 Canal) and the area of the basin north of the C-14 Canal (Atlantic Boulevard to Sample Road).

SR 7 to C-14 Canal

Two stormwater management scenarios were evaluated for the southern section of the basin which includes the Pompano Service Plaza. Multiple pond footprint areas were required to accommodate the requisite stormwater management requirements for the basin. Part of the reason for this is because everything between SR 7 and Lyons Road discharges to the East and everything north of Lyons Road discharges to the West or to the north. Although the Pompano Service Plaza includes existing ponds at the north end and the south end, the pond at the south end accepts runoff from an adjacent linear system whose peak stage controls the peak stage in the southern service plaza pond. This makes it difficult to send more runoff to that pond unless the connected linear swale is piped to another location. The pond at the north end is proposed for relocation due to expanded truck parking. The relocation area has been considered and utilized under this alternative to address stormwater management needs for the proposed improvements.

Within the southern segment of the basin, Stormwater Scenario 1 is the preferred alternative based on the results of the analysis since it will only require two offsite ponds within the Fern Forest Nature Center area. Further, the ponds south of Cypress Creek and the ponds at the north end of the service plaza are all located on R/W owned by FDOT. Once the ancillary environmental report data is available, this basin will be reevaluated since the Fern Forest Nature Center area may include additional environmental restrictions.

C-14 Canal to Sample Road

Three stormwater management Scenarios were considered within the northern segment of the basin. Considering that there are two proposed interchange improvements within this segment of the basin, there was a lot more flexibility to identify locations for stormwater ponds. Each of the three stormwater scenarios fit within the various interchange infield areas and remnant parcels

that were available within the basin. For the benefit of this incomplete report, Scenario 1 will be considered the preferred alternative until the ancillary environmental documents are available.

Hillsboro Basin

Three stormwater management alternatives were evaluated within this basin at the north end of the project. Since the basin is shorter than the other basins and only extended from Sample Road to Wiles Road it wasn't necessary to develop and evaluate stormwater scenarios. The preferred alternative within this Basin is Alternative 1, which takes advantage of the shared use opportunity available with Tradewinds Park which has already been agreed to by Broward County. Further, the required R/W is owned by FDOT and Broward County. Pond Alternative 2 and 3 are located on undeveloped offsite property at the north end of the basin and using these alternatives may result in environmental impacts. This information will be incorporated into the discussion and summary tables once available. **Table 9-1** presents the preferred pond alternatives within each basin.

Table 9-1: Preferred Pond Alternatives and Anticipated Right of Way

Basin/Pond Nomenclature	Pond Nomenclature	Preferred Alternative	Anticipated R/W Required
C-11/N-4	Single Location (Pond 1)	Alternative 1	0.00 ac.
NNR	Single Location (Pond 1)	Alternative 1	0.00 ac.
C-12	1A/1B/Interchange Areas A thru E	Alternative 1	0.00 ac.
C-13	1A/1B-1/1B-2)	Alternative 1	3.19 ac. (1B-2)
C-14 (SR 7 to C-14)	1A-1/1A-2/1B/1C/1D	Alternative 1	5.75 ac. (1B) 7.16 ac. (1C)
C-14 (C-14 to Sample)	1A-1/1A-2/1B	Alternative 1	0.00 ac.
Hillsboro	Single Location (Pond 1)	Alternative 1	0.00 ac.

Note: The nomenclature for single location ponds is 1 or Pond 1.

Most of the alternatives presented show no anticipated R/W requirements, because preferred pond scenarios included pond alternative component areas located within property owned by FDOT, or within R/W that will be acquired anyway to support the proposed interchange improvements.

The two areas where R/W will be required are undeveloped parcels located in the northwest quadrant of the Commercial Boulevard interchange and within the Fern Forest Nature Center area.

10 Conclusions

As part of this analysis, pond site alternatives or stormwater management scenarios were analyzed for six major basins and 13 sub-basins. The previous sections of this report along with the evaluation matrices included in Appendix D summarize the results of the analysis. A preferred alternative was selected based on this analysis with the preferred alternative or scenario and the estimated R/W needs summarized in the previous section of this report. The information included herein is preliminary and refinement will be required during the design phase once the interchange improvements and proposed profile grade lines are finalized. It is important to note that a closer examination of the available R/W during the design phase will reveal areas where extended linear extended detention systems could be located providing additional flexibility to the designer and perhaps further reducing the need for offsite R/W.

11 References

FDOT Drainage Design Guide - 2023

FDOT Drainage Manual - 2023

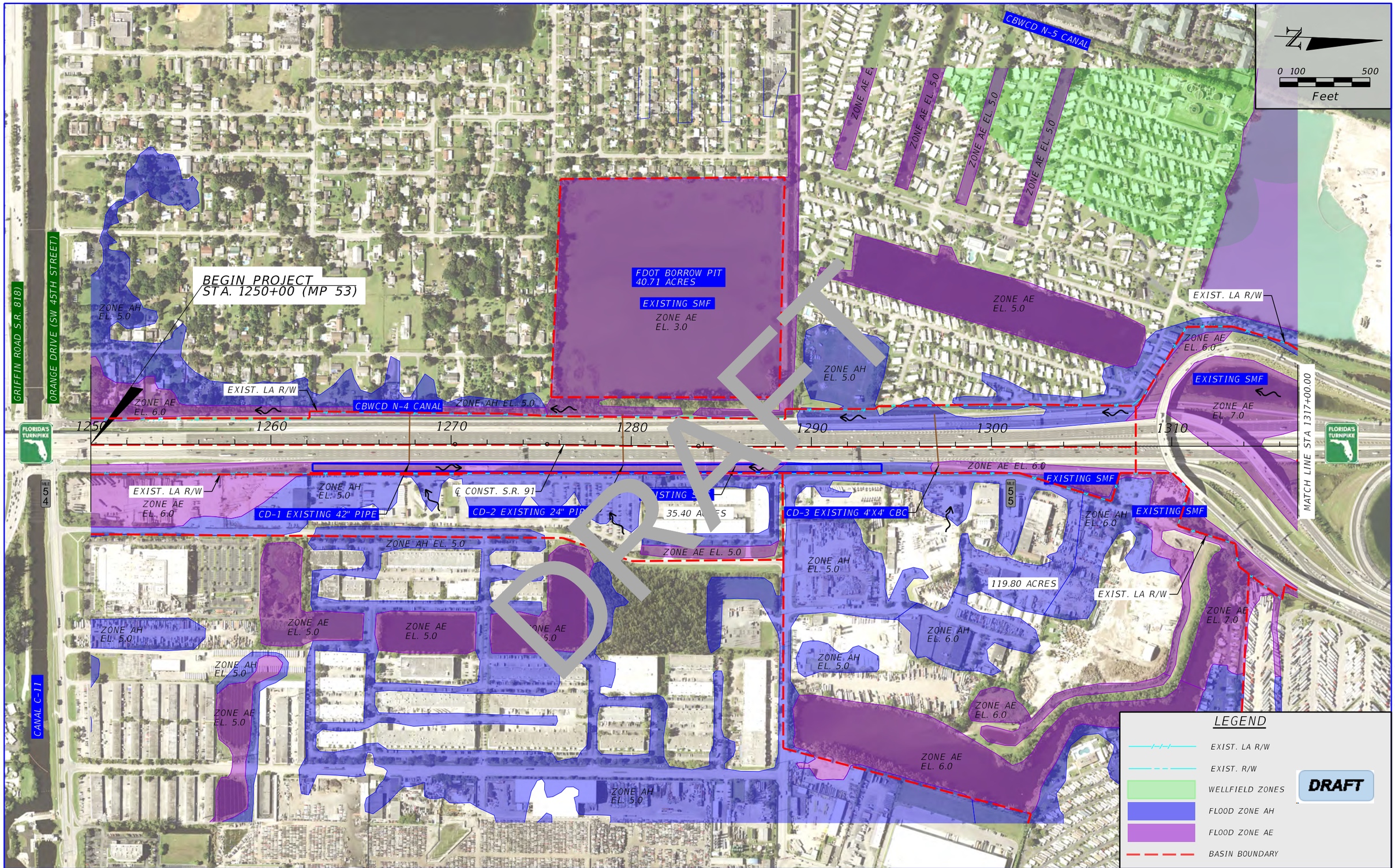
SFWMD *ERP Applicant's Handbooks*

SFWMD Permit Documentation

FTE Design Documentation

Appendix A: Drainage Maps

Existing Drainage Maps



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

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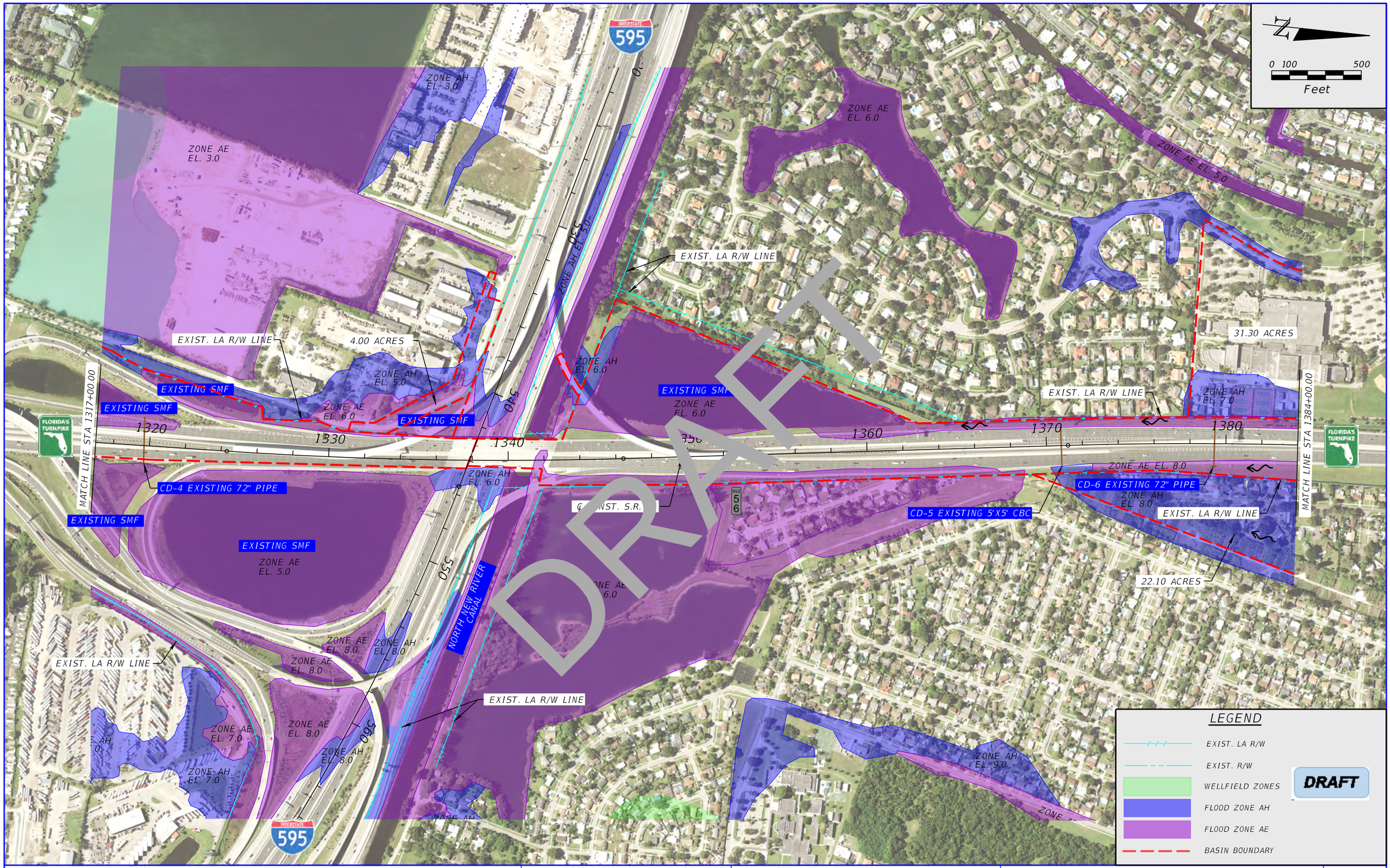

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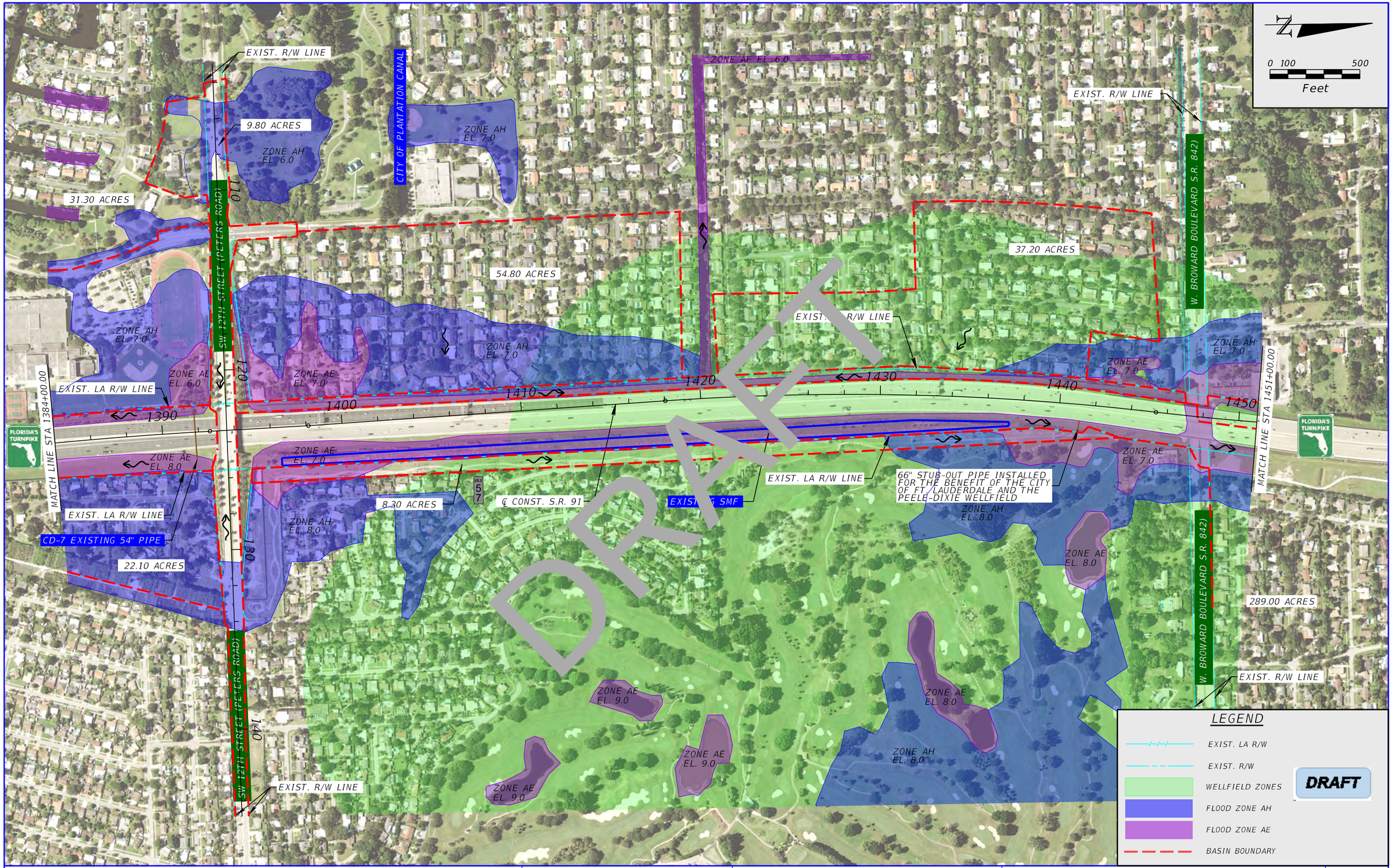

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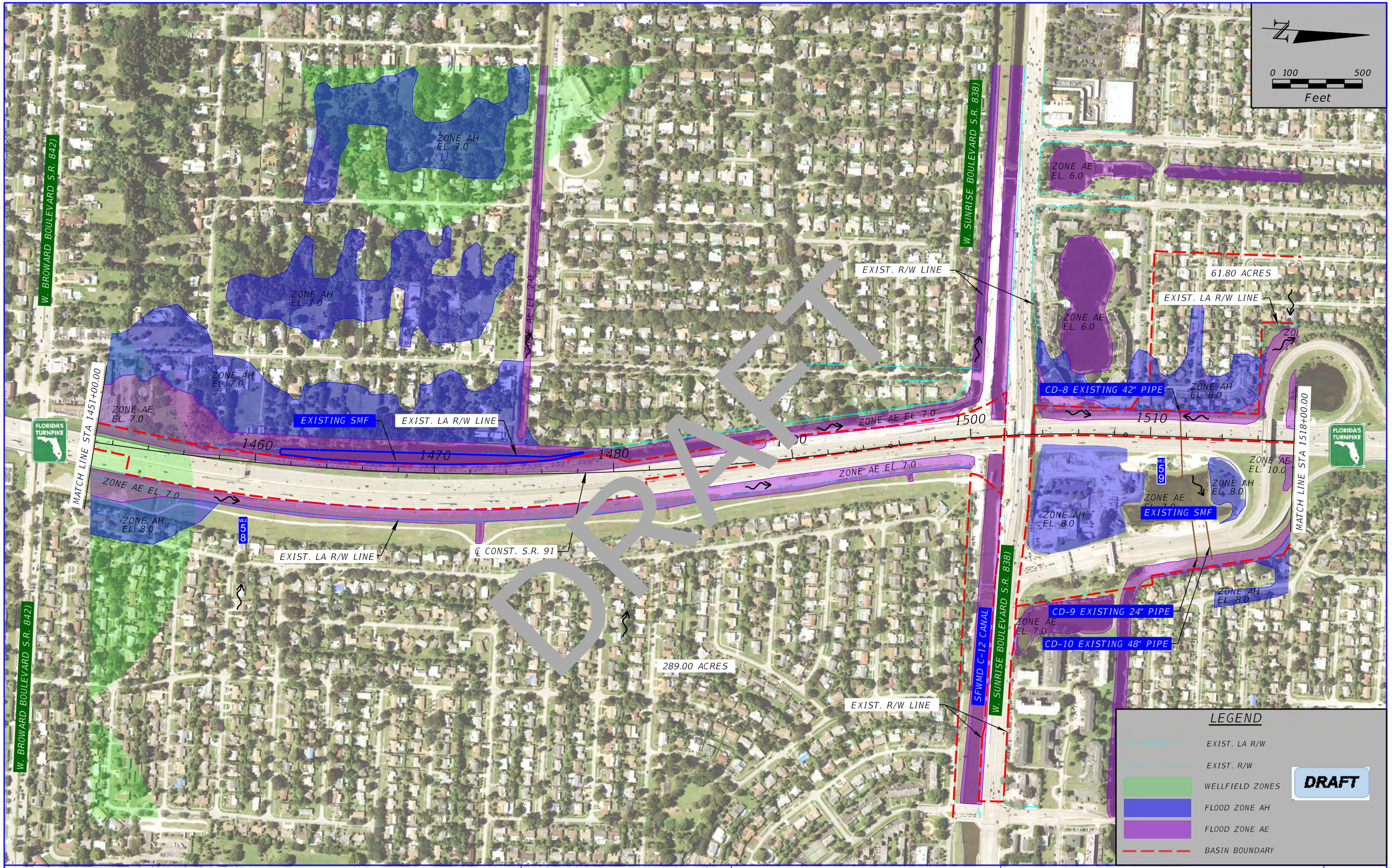

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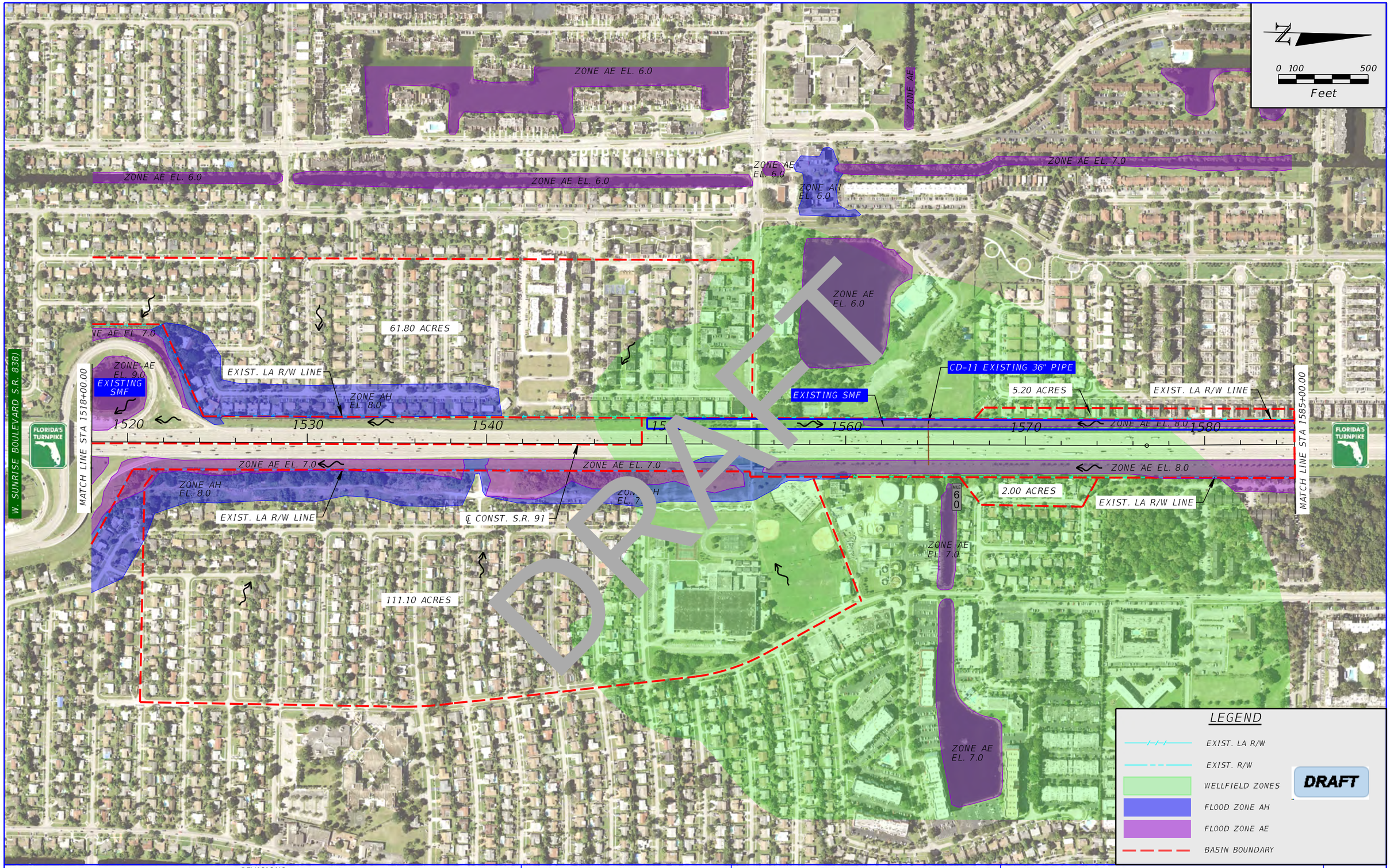

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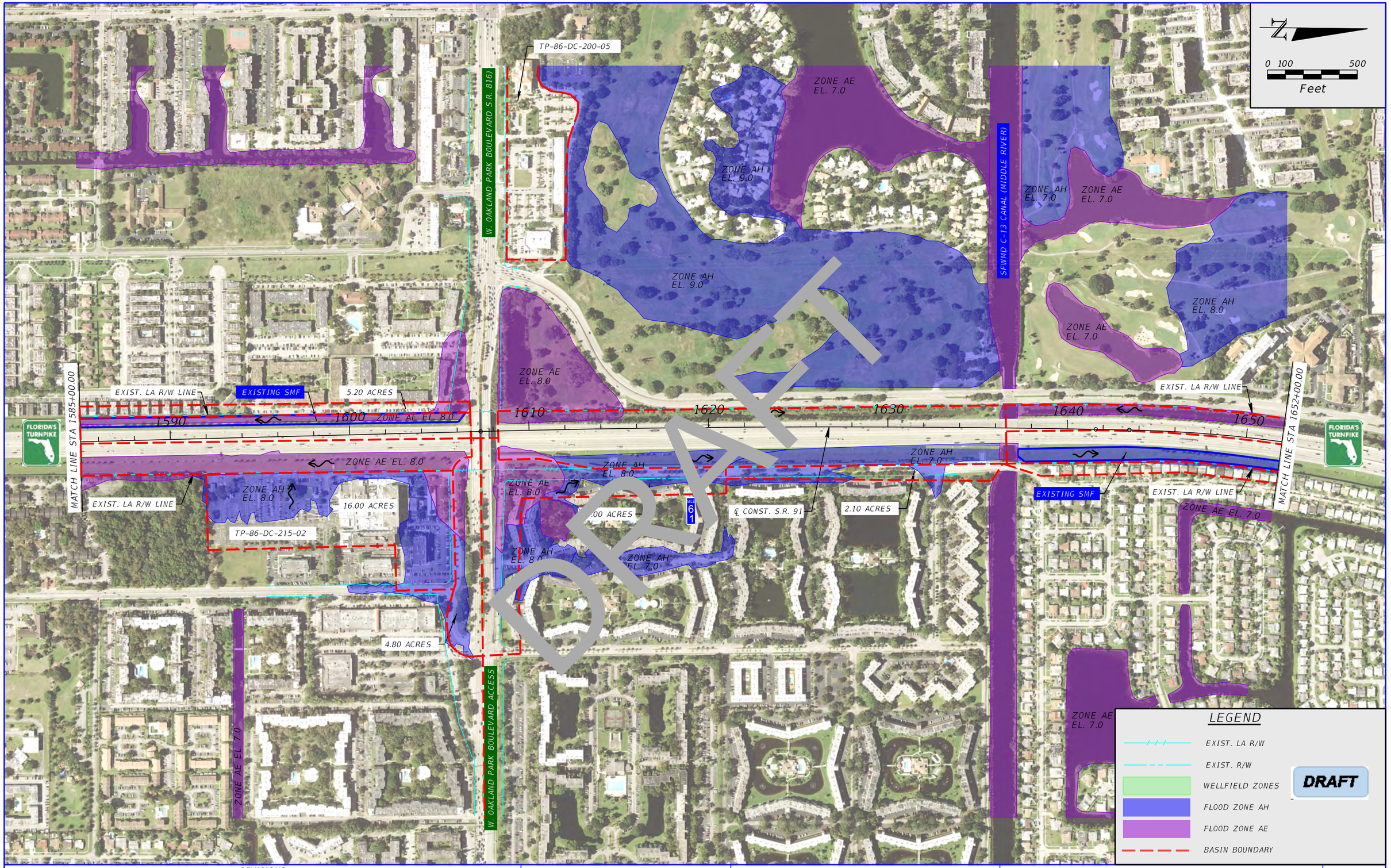

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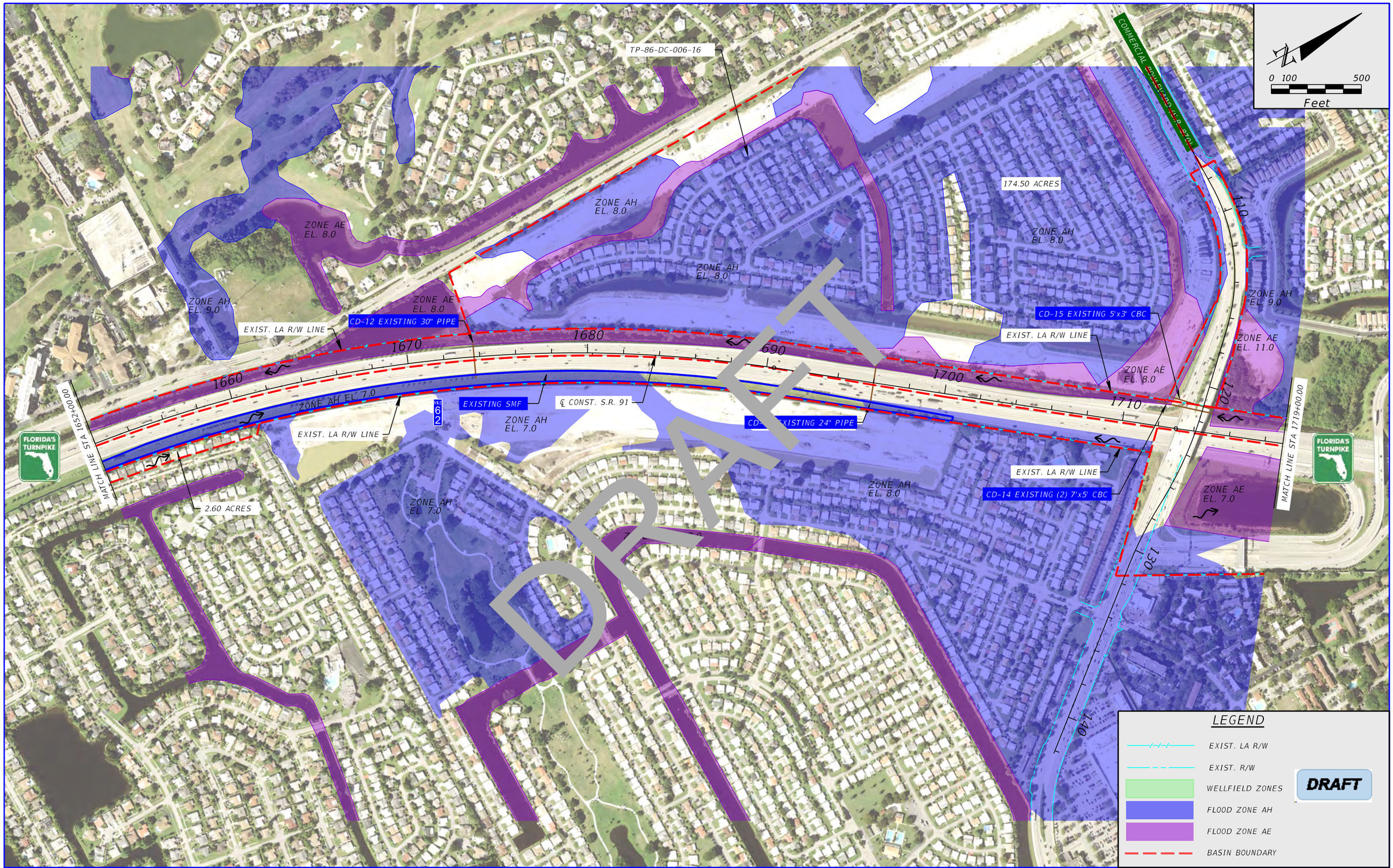

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EXISTING DRAINAGE MAP

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0 100 500
Feet

W. MCNAB ROAD

585.30 ACRES

7.70 ACRES

EXIST. R/W LINE

EXIST. LA R/W LINE

18.90 ACRES

1.90 ACRES

EXISTING SMF

CD-18 EXISTING 48" PIPE

CD-17 EXISTING 48" PIPE

17.30 ACRES

EXIST. LA R/W LINE

EXIST. R/W LINE

CD-16 EXISTING 24" PIPE

CD-19 EXISTING 54" PIPE

CD-20 EXISTING 48" PIPE

EXIST. R/W LINE

W CYPRESS CREEK ROAD

ZONE AE EL 9.0

ZONE AH EL. 8.0

ZONE AE EL. 9.0

ZONE AH EL. 9.0

ZONE AE EL. 9.0

ZONE AH EL. 10.0

ZONE AH EL. 13.0

ZONE AH EL. 11.0

ZONE AE EL. 10.0

ZONE AE EL. 10.0

ZONE AH EL. 9.0

ZONE AE EL. 9.0

ZONE AE EL. 10.0

ZONE AH EL. 10.0

ZONE AE EL. 12.0

ZONE AH EL. 8.0

ZONE AE EL. 8.0

ZONE AH EL. 8.0

ZONE AH EL. 9.0

ZONE AH EL. 8.0

ZONE AH EL. 9.0

ZONE AE EL. 5.0

ZONE AE EL. 8.0

ZONE AH EL. 10.0

1720 1730 1740 1750 1760 1770 1780

MATCH LINE STA 1719+00.00

MATCH LINE STA 1786+00.00

MILE 63

MILE 64

US 441

℄ CONST. S.R. 91

FLORIDA'S TURNPIKE

DRAFT

LEGEND

- EXIST. LA R/W
- EXIST. R/W
- WELLFIELD ZONES
- FLOOD ZONE AH
- FLOOD ZONE AE
- BASIN BOUNDARY

DRAFT

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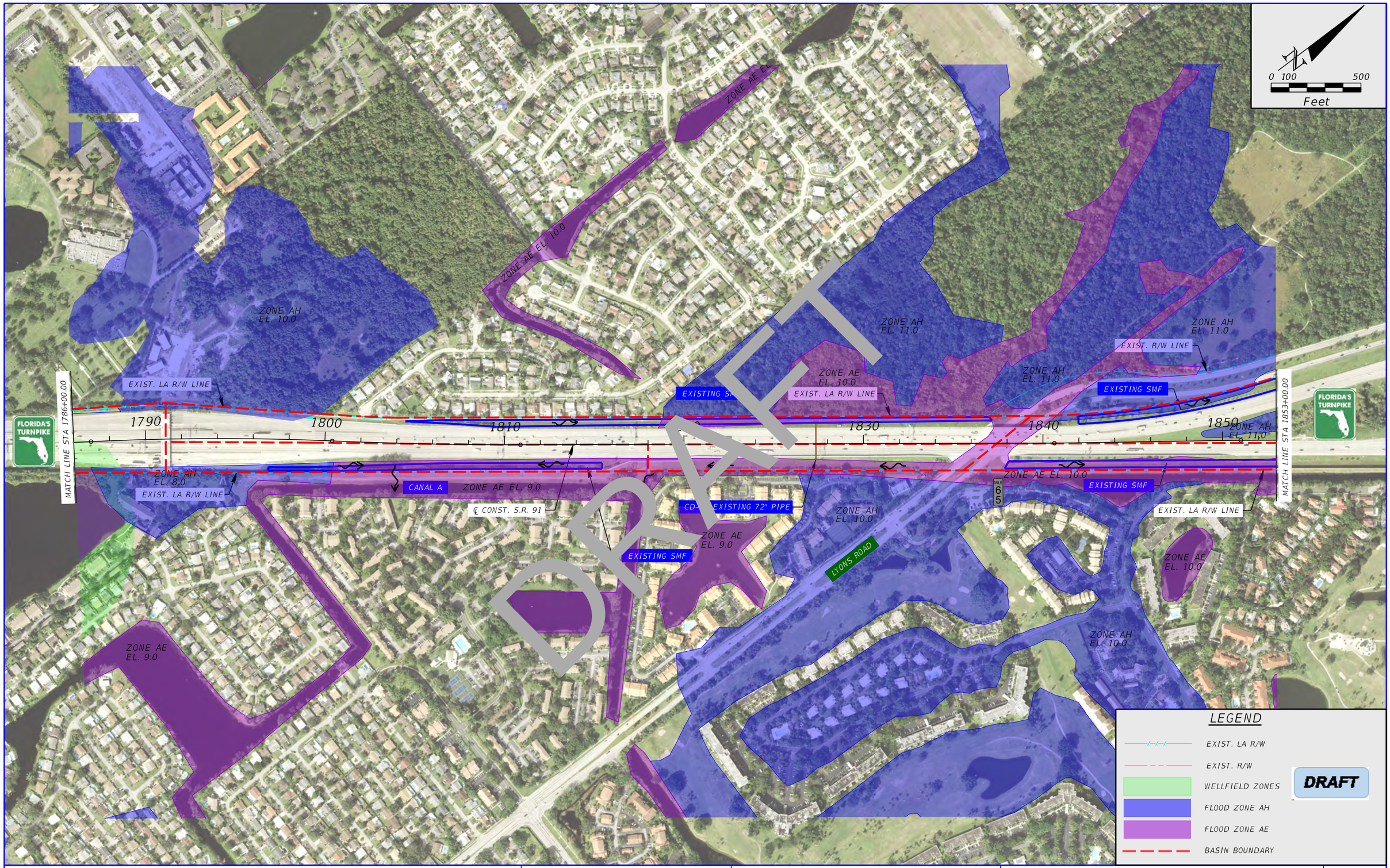

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91	BROWARD	442212-1-22-01

EXISTING DRAINAGE MAP

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0 100 500
Feet

ZONE AH
EL. 11.0

CD-24 EXISTING 72" PIPE

CD-23 EXISTING 36" PIPE

EXIST. R/W LINE

EXIST. LA R/W LINE

LYONS ROAD

CD-22 EXISTING 36" PIPE

EXISTING SMF

ZONE AH
EL. 11.0

EXISTING SMF

ZONE AE
EL. 10.0

EXISTING SMF

ATLANTIC BOULEVARD (S.R. 814)

EXIST. LA R/W LINE

ZONE AH
EL. 11.0

4.30 ACRES

EXIST. LA R/W LINE

MATCH LINE STA 1853+00.00

1860

1870

1880

1900

1910

MATCH LINE STA 1920+00.00

ZONE AE
EL. 10.0

EXIST. LA R/W LINE

EXISTING SMF

℄ CONST. S.R. 91

ZONE AE
EL. 11.0

ZONE AH
EL. 13.0

ZONE AH
EL. 11.0

EXIST. LA R/W LINE

50.00 ACRES

EXIST. R/W LINE

EXIST. R/W LINE

ZONE AE
EL. 9.0

ZONE AE
EL. 9.0

ZONE AH
EL. 9.0

ZONE AE
EL. 9.0

ZONE AH
EL. 10.0

ZONE AH
EL. 10.0

ZONE AE
EL. 9.0

ZONE AE
EL. 11.0

SFWMD C-14 CANAL

DRAFT

LEGEND

- EXIST. LA R/W
- EXIST. R/W
- WELLFIELD ZONES
- FLOOD ZONE AH
- FLOOD ZONE AE
- BASIN BOUNDARY

DRAFT

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EXISTING DRAINAGE MAP

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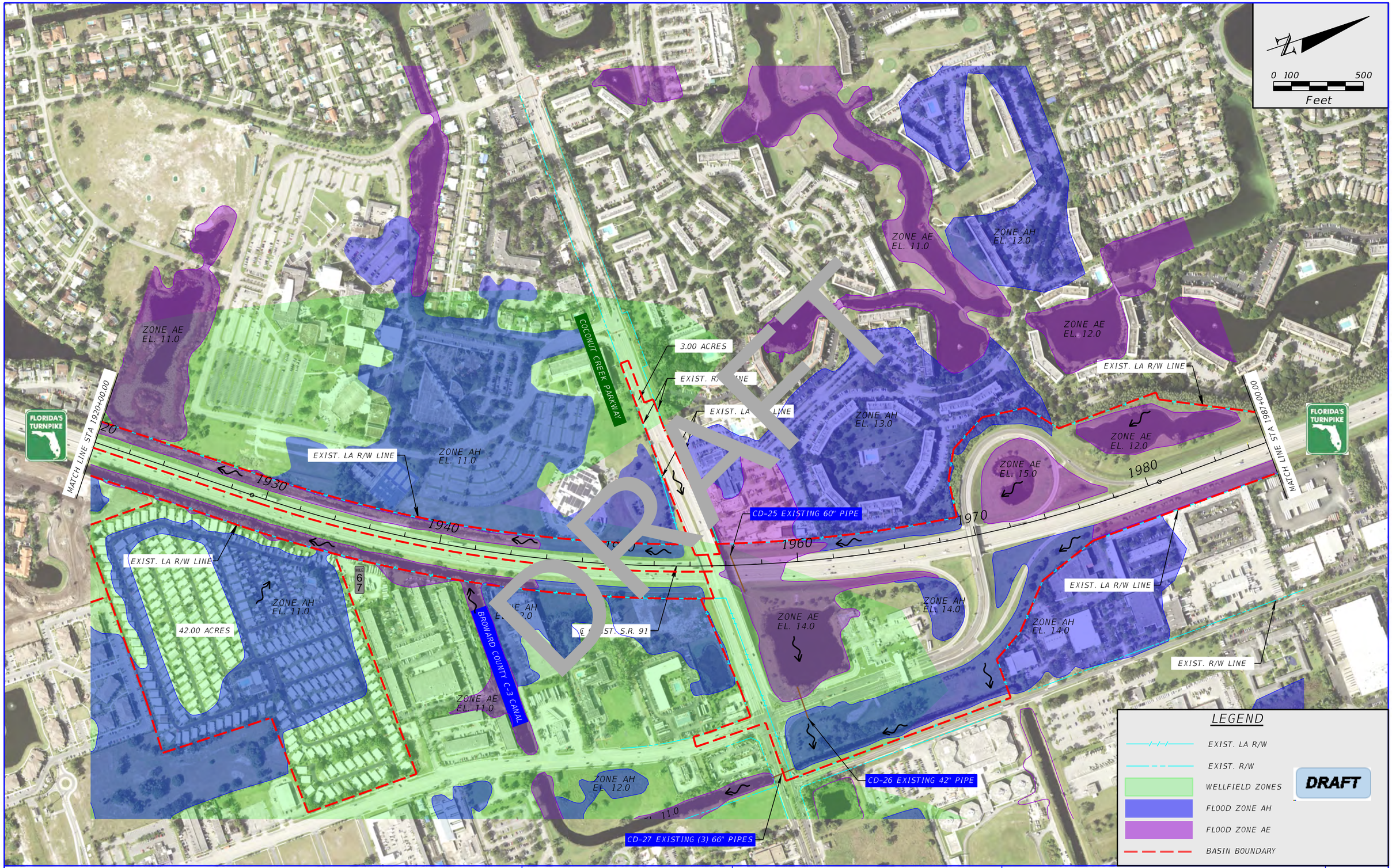

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EXISTING DRAINAGE MAP

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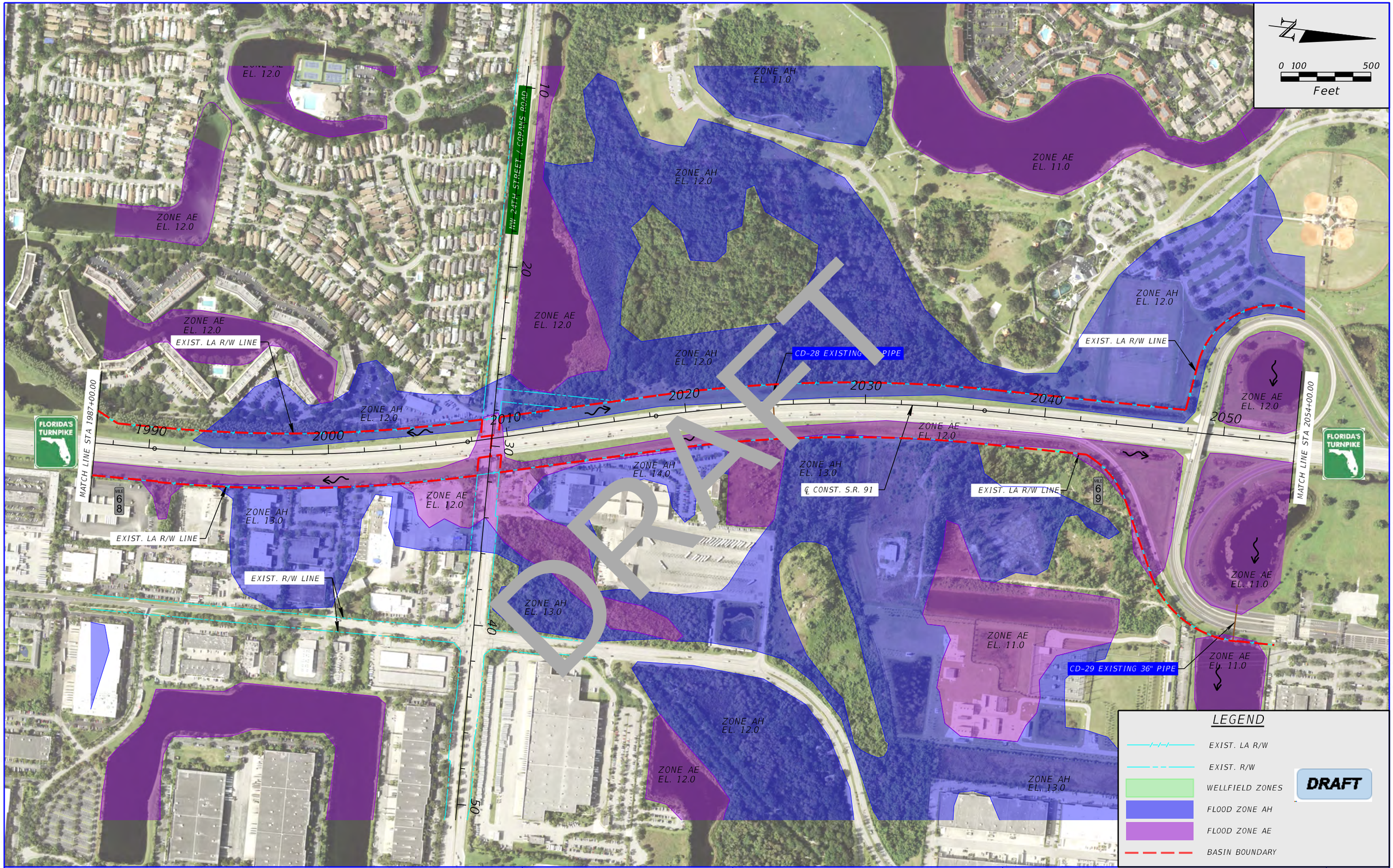

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EXISTING DRAINAGE MAP

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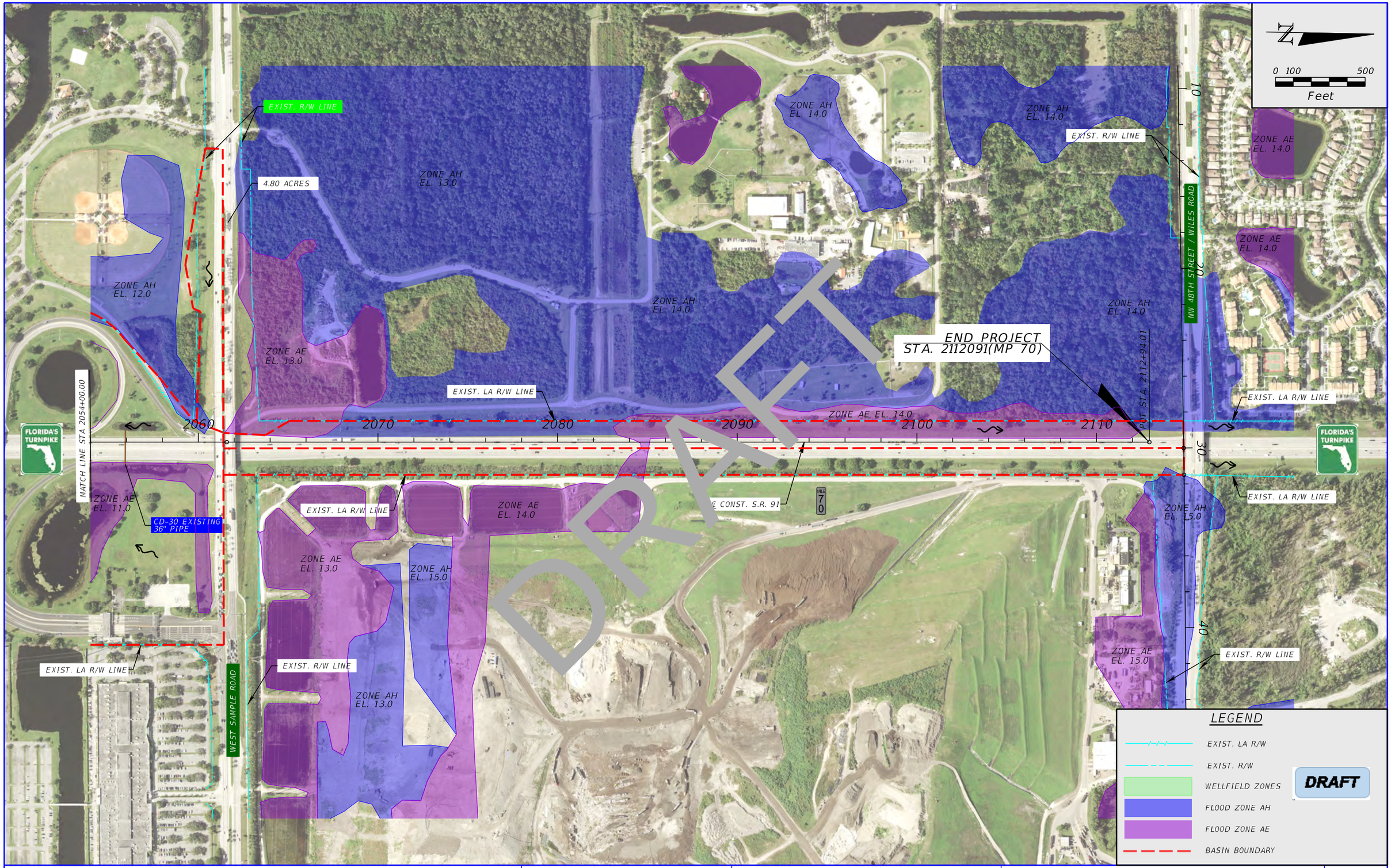

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EXISTING DRAINAGE MAP

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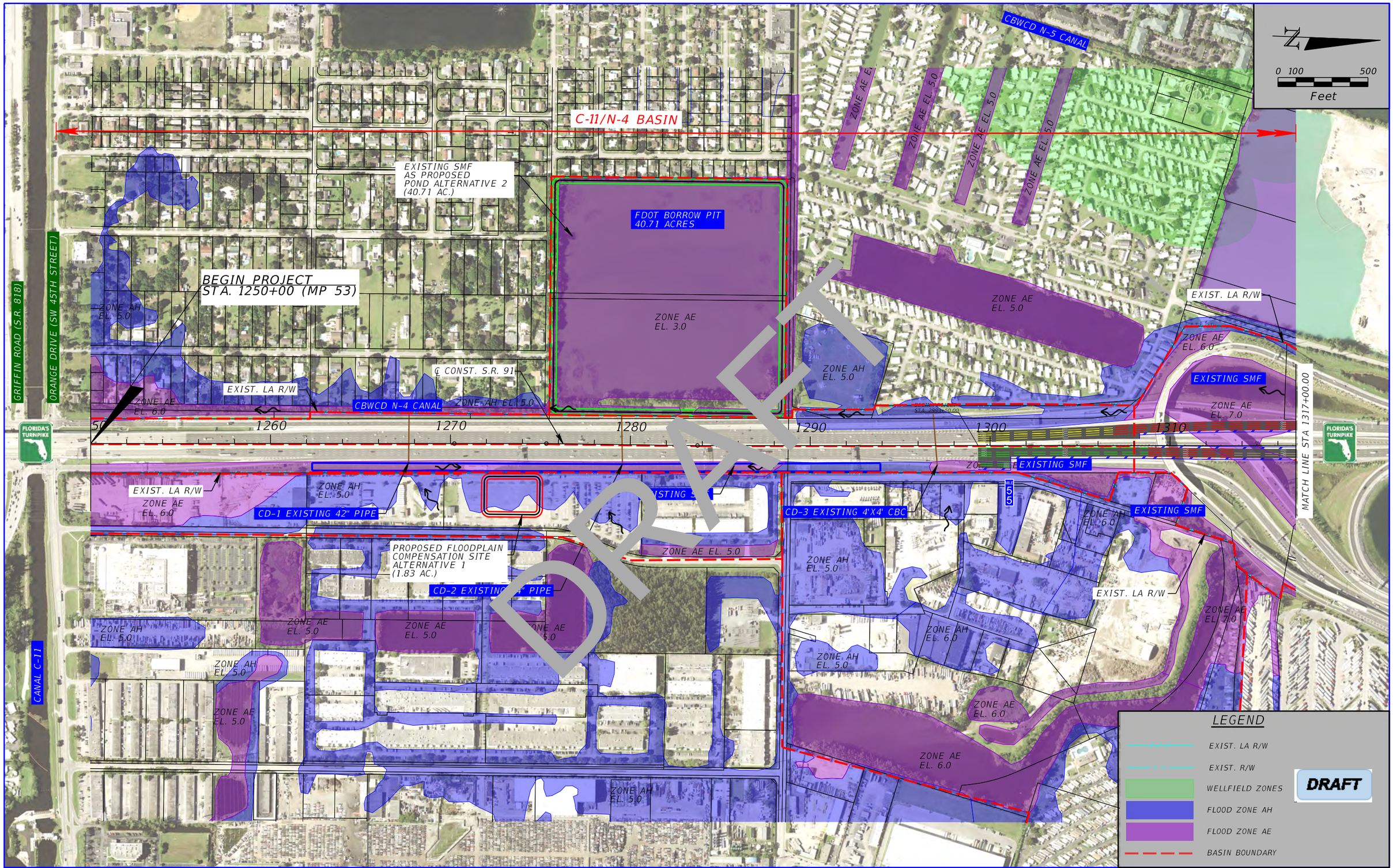
Proposed Drainage Maps



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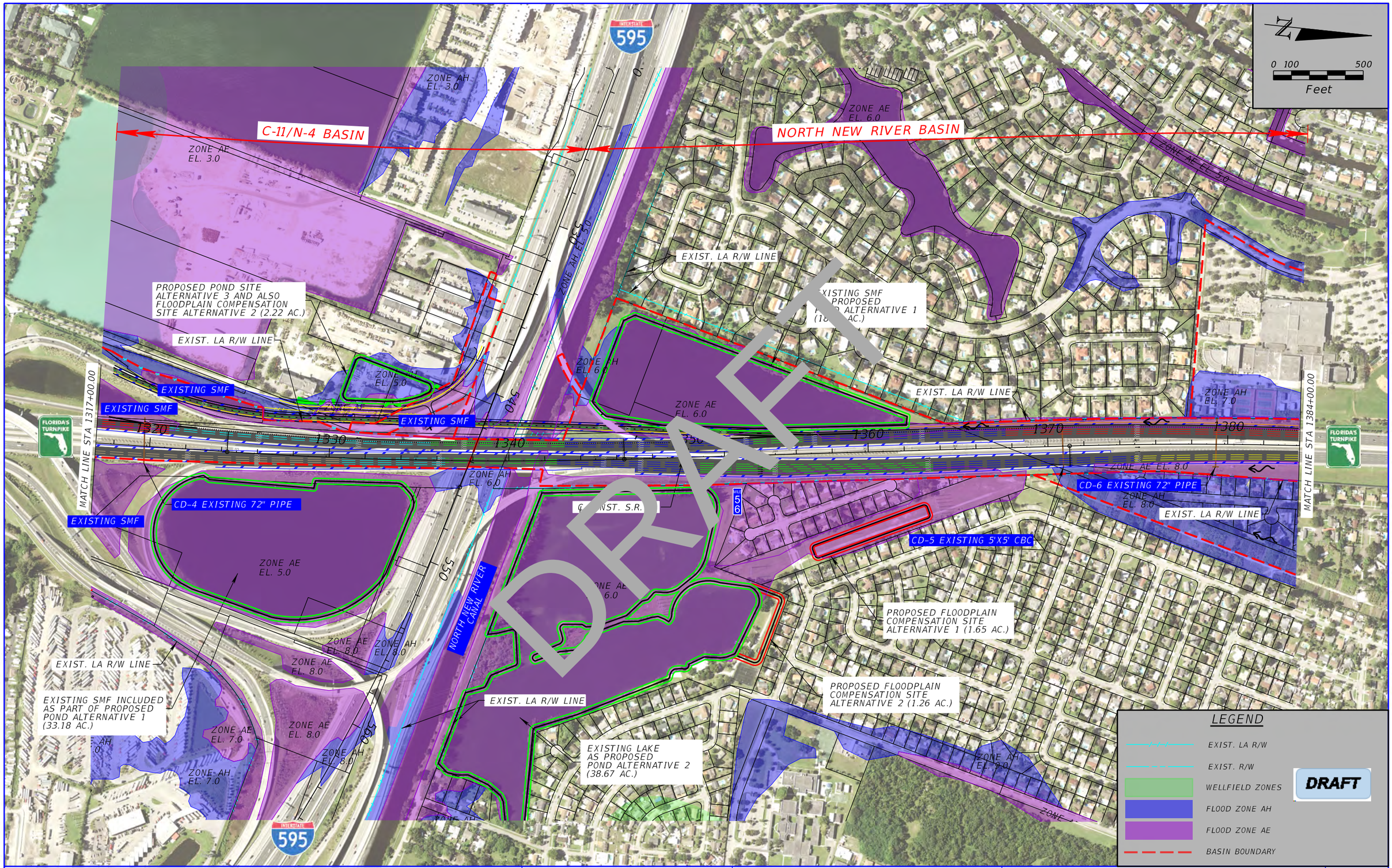
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (1)



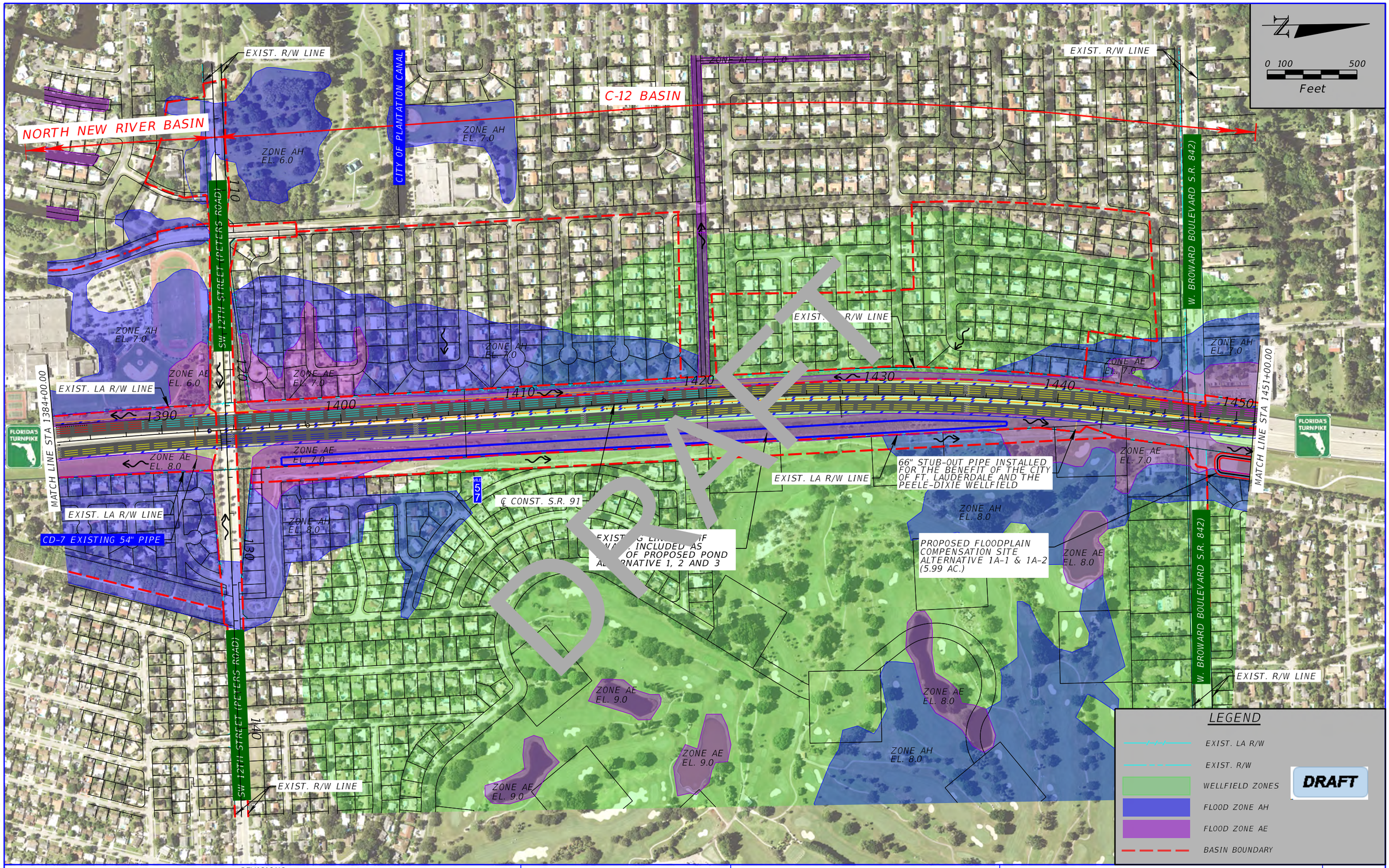
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Draft/subject to change		

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (2)



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (3)

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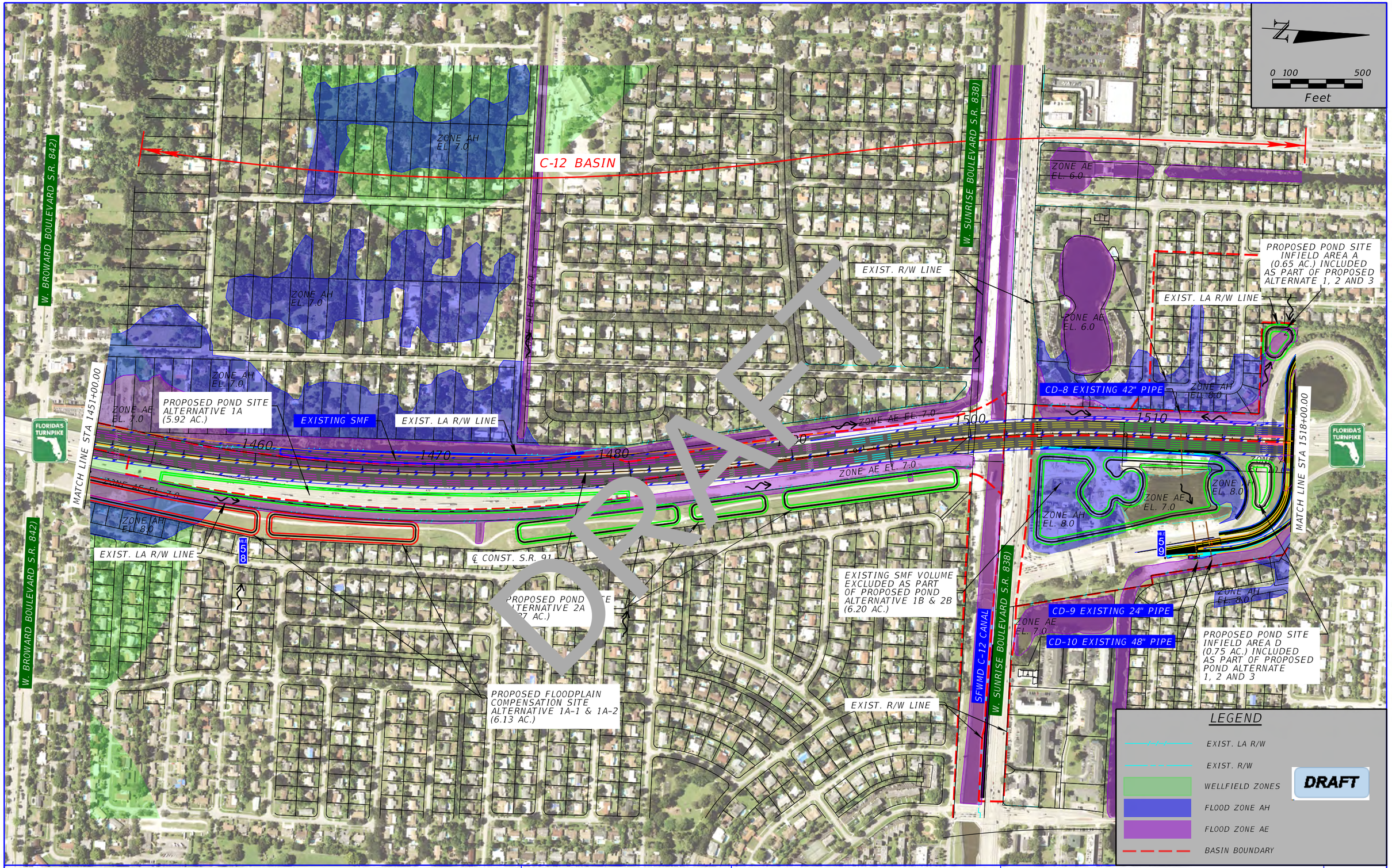

REVISIONS			
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	Draft/subject to change		

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (4)

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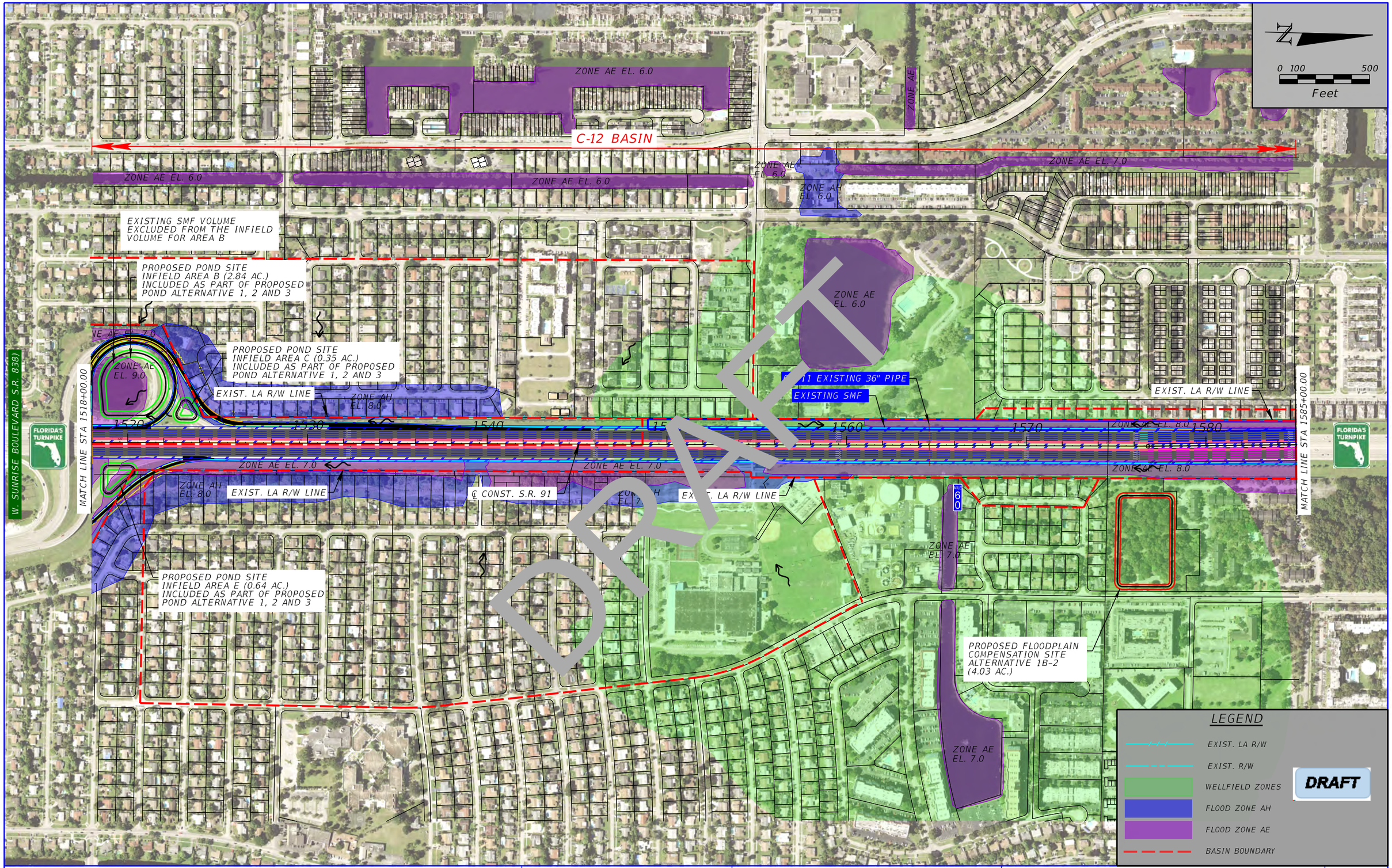

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Draft/subject to change		

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (5)

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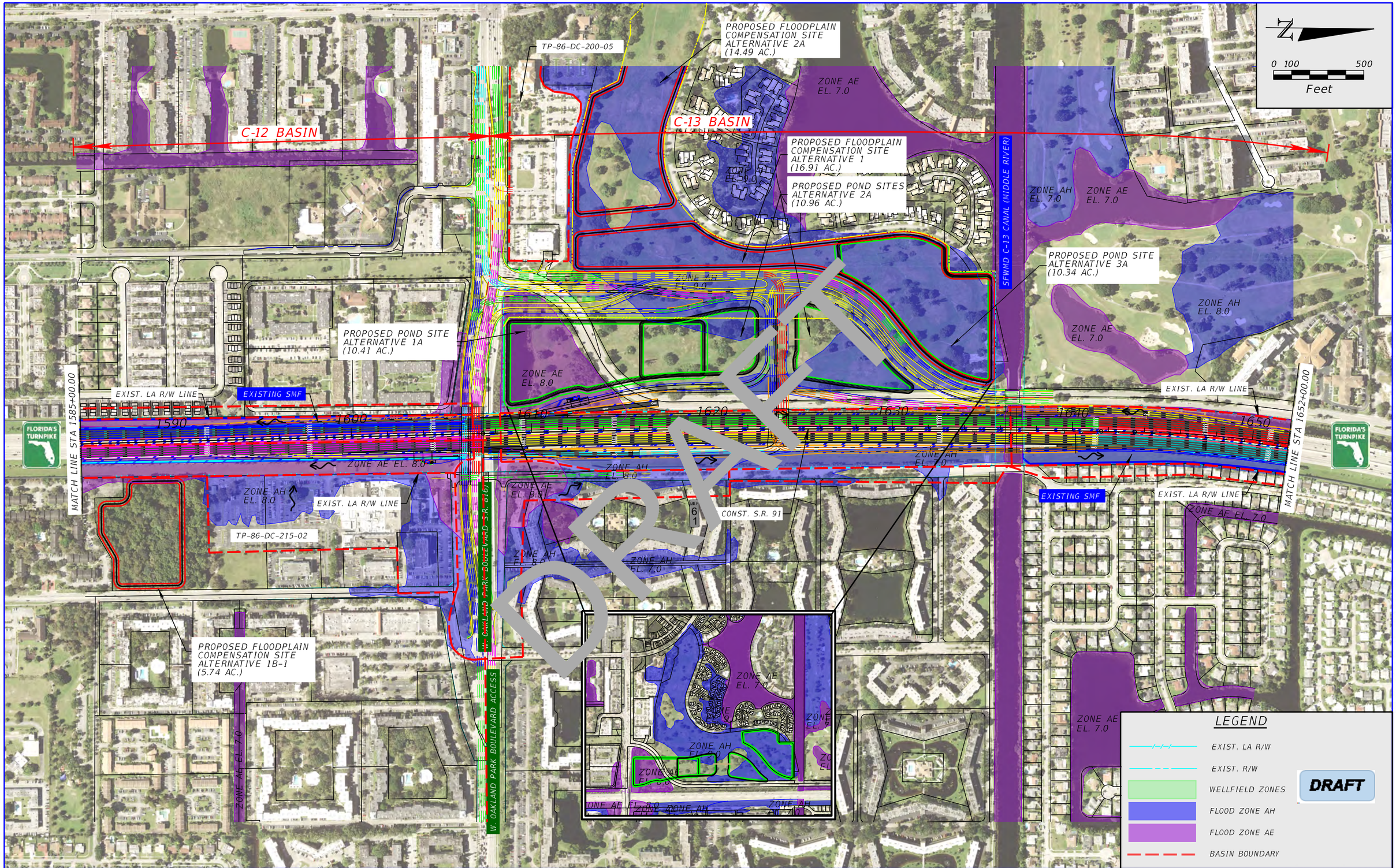

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Draft/subject to change		

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (6)

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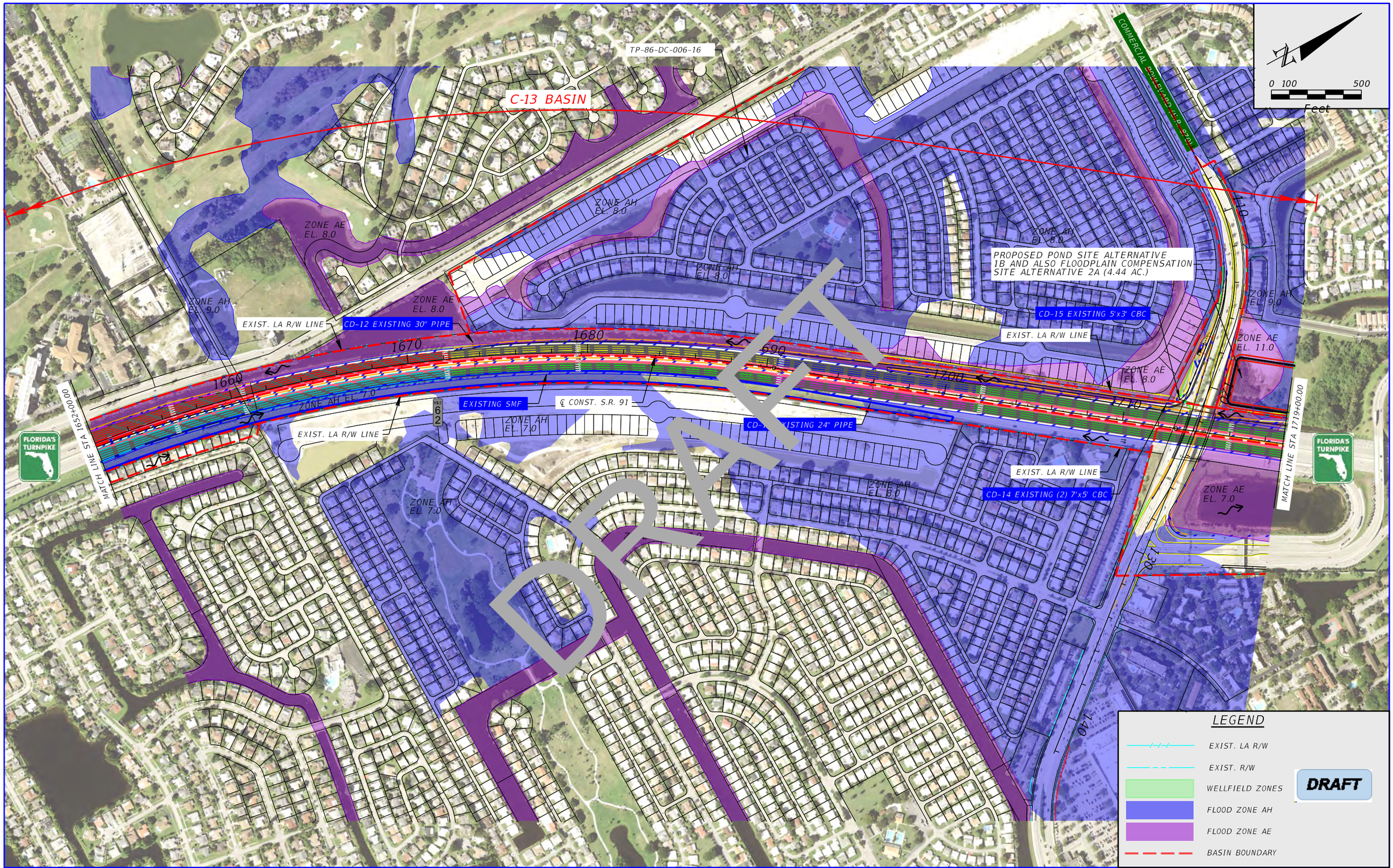

REVISIONS			
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	Draft/subject to change		

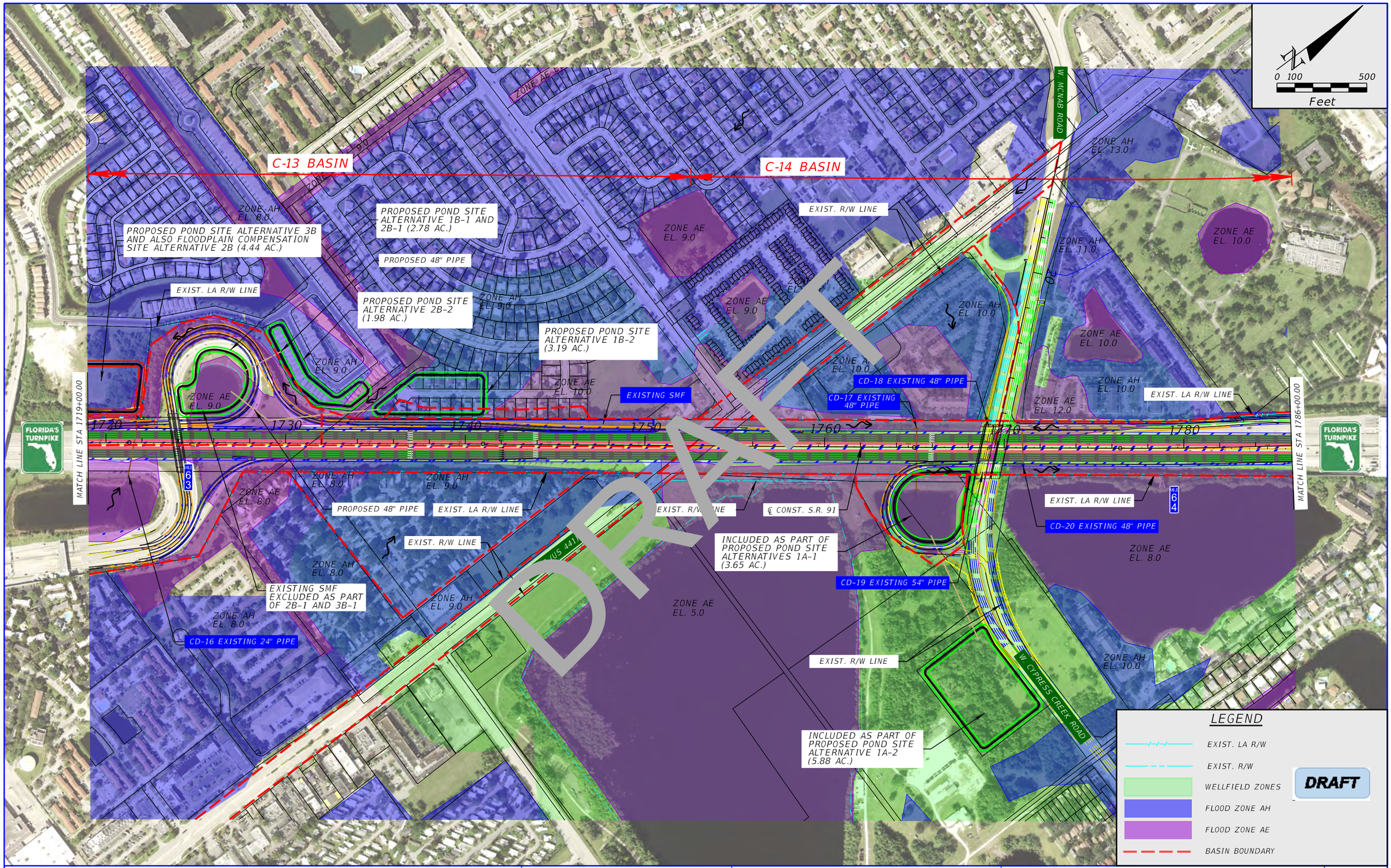
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (7)

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Draft/subject to change		

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (8)

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$

0 100 500
Feet

C-14 BASIN

PROPOSED POND SITE ALTERNATIVE 1B (5.75 AC.)

PROPOSED FLOODPLAIN COMPENSATION SITE ALTERNATIVE 1 (7.30 AC.)

PROPOSED POND SITE ALTERNATIVE 2A (15.74 AC.)

ZONE AE EL. 10.0

ZONE AH EL. 10.0

ZONE AH EL. 11.0

ZONE AE EL. 10.0

ZONE AH EL. 11.0

EXIST. R/W LINE

EXIST. LA R/W LINE

EXISTING SMF

1790 1800 1810 1830 1840 1850

MATCH LINE STA 1786+00.00

MATCH LINE STA 1853+00.00

ZONE AH EL. 8.0

CANAL A

ZONE AE EL. 9.0

℄ CONST. S.R. 91

CD- EXISTING 72" PIPE

ZONE AE EL. 9.0

ZONE AH EL. 10.0

LYONS ROAD

ZONE AE EL. 10.0

ZONE AE EL. 9.0

ZONE AH EL. 10.0

MILE 65

FLORIDA'S TURNPIKE

DRAFT

LEGEND

- EXIST. LA R/W
- EXIST. R/W
- WELLFIELD ZONES
- FLOOD ZONE AH
- FLOOD ZONE AE
- BASIN BOUNDARY

DRAFT

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Draft/subject to change		

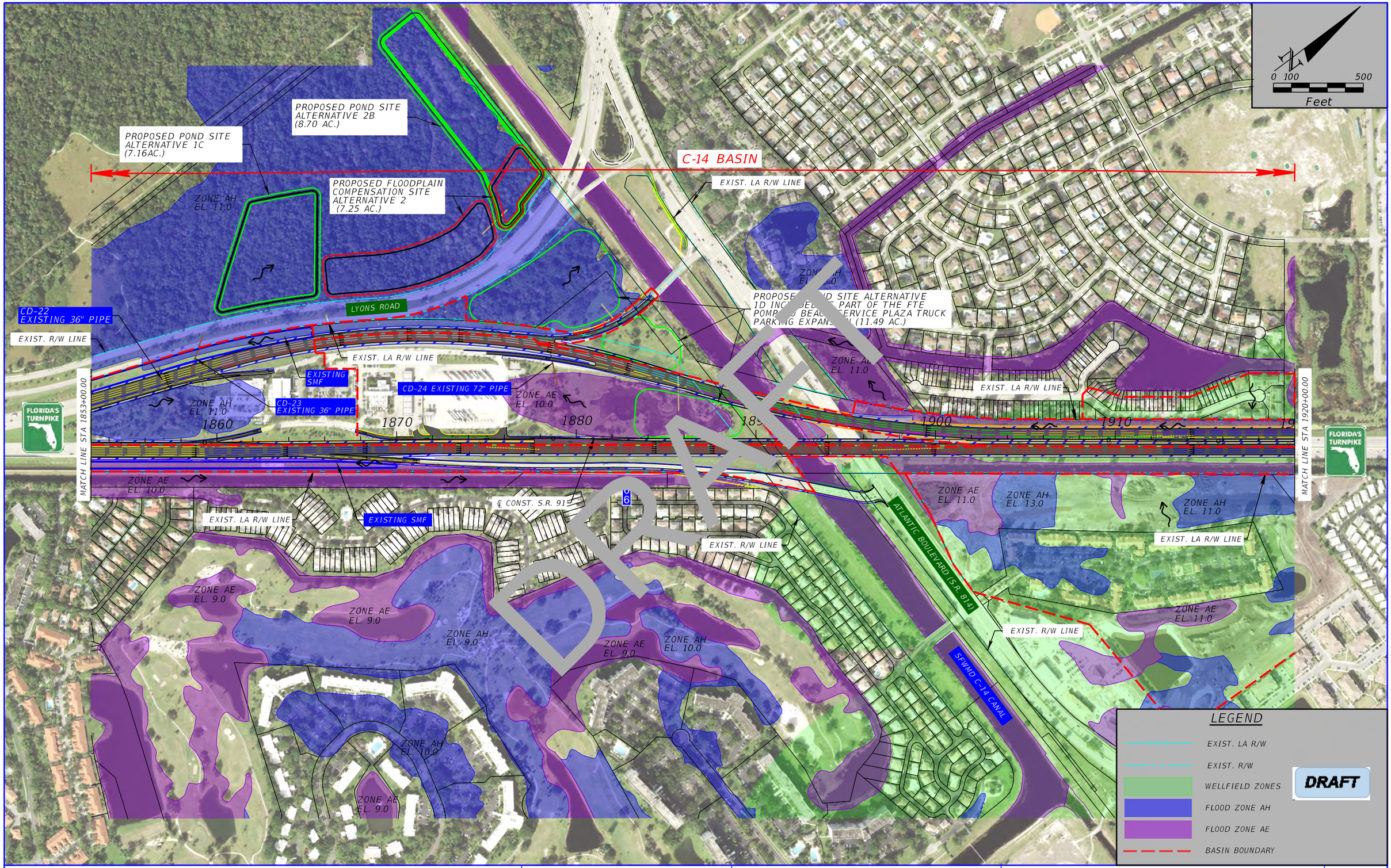
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (9)

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Draft/subject to change		

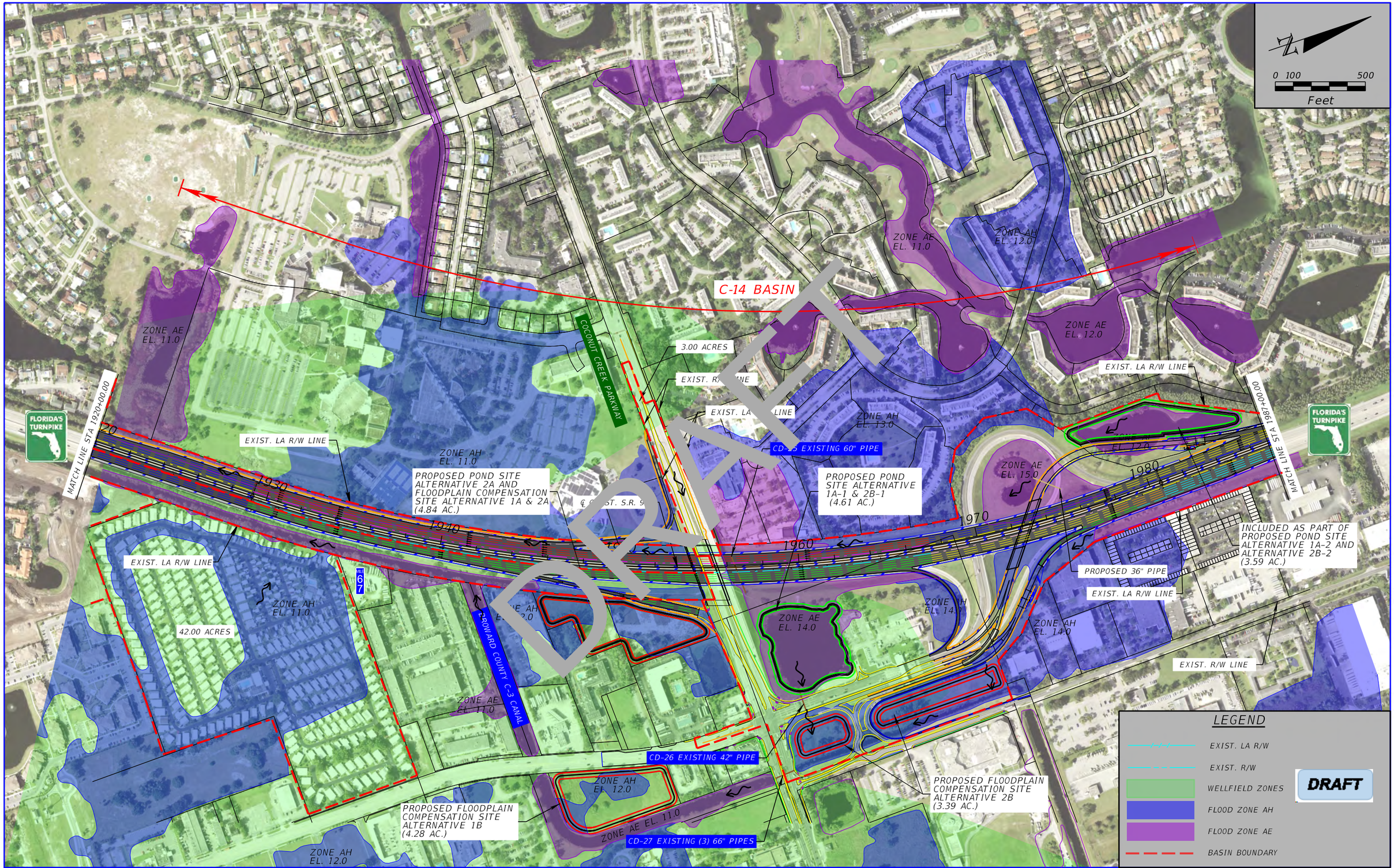
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (10)

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$



REVISIONS			
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	Draft/subject to change		

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (11)

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Draft/subject to change		

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (12)

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$

N

0 100 500

Feet

EXIST. R/W LINE

ZONE AH EL. 13.0

ZONE AH EL. 14.0

ZONE AH EL. 14.0

EXIST. R/W LINE

ZONE AE EL. 14.0

C-14 BASIN

HILLSBORO BASIN

PROPOSED POND SITE ALTERNATIVE 2 (4.84 AC.)

ZONE AH EL. 12.0

PROPOSED POND SITE ALTERNATIVE 1A-1 AND 1A-2 (3.45 AC.)

ZONE AH EL. 14.0

PROPOSED FLOODPLAIN COMPENSATION SITE ALTERNATIVE 1 (5.24 AC.)

ZONE AH EL. 14.0

ZONE AE EL. 13.0

EXIST. LA R/W LINE

ZONE AE EL. 14.0

EXIST. LA R/W LINE

NW 48TH STREET / WILES ROAD

MATCH LINE STA 2054+00.00

2060

2070

2080

2090

2100

2110

PROP. STA 2111+94.01

ZONE AE EL. 11.0

CD-30 EXISTING 36" PIPE

EXIST. LA R/W LINE

ZONE AE EL. 14.0

PROPOSED POND SITE ALTERNATIVE 1B AND ALTERNATIVE 2C (16.27 AC.)

ZONE AH EL. 15.0

℄ C[illegible]ST. S.R. 91

MILE 70

END PROJECT STA. 2112+91(MP 70)

ZONE AH EL. 15.0

PROPOSED FLOODPLAIN COMPENSATION SITE ALTERNATIVE 2 (4.55 AC.)

PROPOSED POND SITE ALTERNATIVE 3 (5.11 AC.)

ZONE AE EL. 15.0

EXIST. LA R/W LINE

EXIST. R/W LINE

WEST SAMPLE ROAD

ZONE AH EL. 13.0

BROWARD COUNTY LANDFILL

DRAFT

LEGEND

EXIST. LA R/W

EXIST. R/W

WELLFIELD ZONES

FLOOD ZONE AH

FLOOD ZONE AE

BASIN BOUNDARY

DRAFT

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Draft/subject to change		

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
91	BROWARD	442212-1-22-01

PROPOSED DRAINAGE MAP

SHEET NO. (13)

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$

Appendix B: Pond Sizing Calculations

C-11/N-4 Basin

Begin Project to I-595

Pond Sizing Calculations

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	RMG
Project Number:	44221212201	**Checked by:**	
Task Description:	**Calculation of Stage Increase**	**Date:**	5/25/2023

Basin C-11/N-4
Pond Alternatives 1 and 2

Alternative 1 - Existing Borrow Pit Pond	
I-595 Permitted Pond Surface Area (ac) =	40.55
Total Volume Required =	0.74
Existing Pond Expected Stage Increase (ft) =	0.018

Notes:
1. Stage increase based on required volume evenly distributed over surface area of pond.
2. Area used in calculations matches 25/72 post peak stage used for I-595 Design Build improvements.
3. Area on drainage maps represents the entire borrow pit including berms.

Alternative 2 - Existing Interchange Ponds	
Estimated Pond Surface Area (ac) =	23.98
Total Volume Required =	0.74
Existing Pond Expected Stage Increase (ft) =	0.031

Notes:
1. Stage increase based on required volume evenly distributed over su[illegible]e area of pond.
2. Area used in calculations matches 25/72 post peak stage used fo[illegible]95 Design Build improvements.
3. Area on drainage maps represents the entire infield pond area [illegible]icted on the I-595 Design Build Drainage Maps

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of ROW Requirements	**Date:**	11/8/2022

Basin C-11/N-4
Pond Alternative 3 Sizing Calculations

Existing Ground at Pond site =	6.00	NAVD88	(Estimated From GIS Topographic Information)
Elev SHW =	1.40	NAVD88	(Based on control elevation of the interchange pond
Estimated Pond Bottom =	2.50	NAVD88	
Required Water Quality Volume(1)	0.27	AC-FT.	
Required Attenuation Volume(1)	0.47	AC-FT.	
Pond Area Based on treatment volume	1.09	AC	
Assume 1 foot of pond freeboard	1.00	FT.	
Treatment Depth	0.25	FT.	
Total Attenuation Depth based on Pond Area	0.43	FT.	
Total Depth from SHWL to Top of Berm	**1.68**	**FT.**	
Elev Pond Bottom =	2.50	NAVD88	
Minimum Top of Berm Elevation given a total depth =	4.18	NAVD88	
Actual Top of Berm Elevation =	6.00	NAVD88	Matches existing ground elevation
Unit Length Based on L/W = 2	308	FT.	
Unit Width Based on L/W = 2	154	FT.	
Maintenance Berm Width of 15-ft	30	FT.	
Grade Adjustment Width Assumed 1:2	7	FT.	
Horizontal Distance Based on a 1:4 Slope and total Depth	28	FT.	For this po[illegible]nly depth between ground and pond bottom
Total Pond Length (including maintenance berm and adjustments)	374	FT.	
Total Pond Width (including maintenance berm and adjustments)	[illegible]	FT.	
Preliminary Property Size Required	1.88	AC.	
10% Contigency	[illegible]	AC.	
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	2.07		

Notes:
1. Calculation taken from treatment and attenuation spreadsheet

C-11/N-4 Basin

Begin Project to I-595

Treatment and Attenuation Supporting Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements

Prepared by: JAB
Checked by: RMG
Date: 11/8/2022

C-11/N-4 Canal Basin	Required Treatment and Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	145.62	CN	145.62	CN
Pond Area, ac	25.05	100	24.90	100
Impervious Area, ac	82.13	98	83.44	98
Pervious Area, ac	38.44	61	37.28	61
CN	88.6		88.9	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	1.29		1.25	
Runoff Depth (Q), in	12.56		12.60	
Runoff Volume, acre-ft	152.45		152.9	
Volume Differential, acre-ft	**0.47**			
Treatment Volume				
2.5-in. (1ft./12 in.) x Add'l Impervious Area (ac.) = acre-ft			0.2	
Total Volume Required, acre-ft[1]	**0.7**			

(1) Existing areas permitted for treatment not considered since required volumes are added into existing ponds.

NNR Basin

I-595 to Peters Road

Pond Sizing Calculations

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	RMG
Project Number:	44221212201	**Checked by:**	
Task Description:	**Calculation of Stage Increase**	**Date:**	5/25/2023

Basin North New River (NNR)
Pond Alternatives 1 and 2

Alternative 1 - Existing Stormwater Pond	
Estimated Pond Surface Area (ac) =	14.56
Total Volume Required =	1.43
Existing Pond Expected Stage Increase (ft) =	0.0982

Notes:
1. Stage increase based on required volume evenly distributed over surface area of pond.
2. Area used in calculations matches 25/72 post peak stage used for I-595 Design Build improvements.
3. Area on drainage maps represents the entire borrow pit including berms.

Alternative 2 - Butterfly Lake	
Estimated Pond Surface Area (ac) =	31.62
Total Volume Required =	1.43
Existing Pond Expected Stage Increase (ft) =	0.045

Notes:
1. Stage increase based on required volume evenly distributed over surface area of pond.
2. Area used in calculations is estimated based on water surface elevation of lake.
3. Area on drainage maps represents the entire lake including berms.

NNR Basin

I-595 to Peters Road

Treatment and Attenuation Supporting Calculations

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements

Prepared by: JAB
Checked by:
Date: 11/8/2022

NNR Canal Basin	Required Treatment and Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	69.75	CN	69.75	CN
Pond Area, ac	18.26	100	18.07	100
Impervious Area, ac	39.13	98	41.63	98
Pervious Area, ac	12.36	61	10.05	61
CN	92.0		93.2	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	0.87		0.73	
Runoff Depth (Q), in	13.00		13.16	
Runoff Volume, acre-ft	75.58		76.4	
Volume Differential, acre-ft	**0.90**			
Treatment Volume				
2.5-in. (1ft./12 in.) x Additional Imp. Area (ac.) = acre-ft			0.3	
Total Volume Required, acre-ft[(1)]	**1.4**			

C-12 Basin

Peters Road to Oakland Park Blvd.

Pond Sizing Calculations

C-12 Basin

Peters Road to Oakland Park Blvd.

Stormwater Scenario Sizing Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements C-12 Basin (Peters to Oakland Park)
Stormwater Scenario No. 1 - Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/25/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
Peters to Broward	3.52	13.44	16.96	25.32
Broward to Sunrise	1.13	16.47	17.6	25
Sunrise to Oakland Park	15.12	3.59	18.71	71.91
Total	19.77	33.5	53.27	122.23

Note: Existing treated impervious between Sunrise and Oakland is limited to existing detention swale adjacent to the southbound lanes just south of Oakland Park Blvd since this will be impacted by the proposed widening. The existing ponds within the Sunrise Interchange remain intact in the proposed condition and the stage-storage associated with them has been excluded from the analysis.

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Existing and Proposed Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
Peters to Broward	3.53	2.65	5.28	3.96	0.99
Broward to Sunrise	3.67	2.75	5.21	3.91	0.00
Sunrise to Oakland Park	3.90	2.92	14.98	11.24	9.24
Total	11.10	8.32	25.46	19.10	10.23

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 1A (Dry Detention)
Sub-Basin Location:Broward to Sunrise

Stage (Elev)	Area (ac)	Inc. Vol. (ac.ft.)	Total Vol. (ac.ft.)	
6	4.2	0	0	
6.5	4.4	2.1	2.1	
6.89	4.5	1.7	3.9	Treatment Stage
8	4.9	5.2	9.1	Peak Stage
9	5.3	5.1	14.2	Inside TOB

Attenuation Check	
Peak Stage Vol. =	9.1 ac.ft.
Treatment Vol. =	3.9 ac.ft.
Delta Vol. =	5.2 a
Att. Vol. Req. =	0
Good - Delta Vol	Vol.

5.92 (ac.) **Total pond area as shown on drainage maps includes 15 foot berms and tie-downs**

Treatment Volume Provided (ac.ft.) = 3.88
Total Pavement Treated (ac.) = 24.8

Existing Linear SMF Swale (Dry Detention)
Sub-Basin Location:Peters to Broward

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Tot. Volume (ac.ft.)	
4.5	0.96	0	0	
5.5	1.89	1.4	1.4	
6.5	2.9	2.4	3.8	Treatment Stage
7.5	3.87	3.4	7.2	
7.6	3.97	0.4	7.6	Peak Stage
8.5	4.82	4.0	11.1	Inside TOB

uation Check	
ak Stage Vol. =	7.6 ac.ft.
t. Vol. =	3.8 ac.ft.
Delta Vo	ac.ft.
t. Vol. Req. =	0.99 ac.ft.
ood -	ol > Att. Vol. Req.

Previously constructed linear detention swale including pond h additional are ed.

Treatment Volume Provided (ac.ft.) = 3.8
Total Pavement Treated (ac.) = 24.4

Pond Alternative 1B (Wet Detention) - Existing pond expanded within the large infiel
Sub-Basin Location:Sunrise to Oakland Park

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft	ft.)	
2	2.5	0		
2.50	2.58	1.3		reatment Stage
4	2.81	4.0	5	
6	3.36	2	11.	ak Stage
7.5	3.92		16.	side TOB

6.2 (ac.) **Total pond area in original pond tprint as shown on drainage maps includes 15 foot berms and tie-downs.**

Treatment Volume Provided (ac.ft.) = 1.3
Total Pavement Treated (ac.) = 6.1

Attenuation Check	
Peak Stage Vol. =	17.5 ac.ft.
Treatment Vol. =	1.9 ac.ft.
Delta Vol. =	15.6 ac.ft.
Att. Vol. Req. =	9.2 ac.ft.
Wet Pond Att. =	5.5 ac.ft.
Total Att. =	14.7 ac.ft.
Good - Delta Vol > Att. Vol. Req.	

Sunrise Interchange Infield Areas A thru E (Wet Detention)
Sub-Basin Location:Sunrise to Oakland Park

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
2	1.24	0	0	
2.50	1.35	0.6	0.6	Treatment Stage
6	2.08	6.0	6.0	Peak Stage
8	2.59	4.7	10.7	Inside TOB

5.23 (ac.) **Total infield pond areas A thru E including original pond footprint as shown on drainage maps includes 15 foot berms and tie-downs**

Treatment Volume Provided (ac.ft.) = 0.6
Total Pavement Treated (ac.) = 3.1

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Treatment Check			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
Peters to Broward	25.32	24.4	16.96
Broward to Sunrise	25	24.8	17.6
Sunrise to Oakland Park	71.91	9.2	18.71
Total	122.23	58.4	53.3
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements C-12 Basin (Peters to Oakland Park)
Stormwater Scenario No. 2 - Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/25/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
Peters to Broward	3.52	13.44	16.96	25.32
Broward to Sunrise	1.13	16.47	17.6	25
Sunrise to Oakland Park	15.12	3.59	18.71	71.91
Total	19.77	33.5	53.27	122.23

Note: Existing treated impervious between Sunrise and Oakland is limited to existing detention swale adjacent to the southbound lanes just south of Oakland Park Blvd since this will be impacted by the proposed widening. The existing ponds within the Sunrise Interchange remain intact in the proposed condition and the stage-storage associated with them has been excluded from the analysis.

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Existing and Proposed Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
Peters to Broward	3.53	2.65	5.28	3.96	0.99
Broward to Sunrise	3.67	2.75	5.21	3.91	0.00
Sunrise to Oakland Park	3.90	2.92	14.98	11.24	9.24
Total	11.10	8.32	25.46	19.10	10.23

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 2A (Dry Detention)
Sub-Basin Location:Broward to Sunrise

Stage (Elev)	Area (ac)	Inc. Vol. (ac.ft.)	Total Vol. (ac.ft.)	
3	3.4	0.0	0.0	
3.9	3.8	3.2	3.2	Treatment Stage
6	4.7	8.9	12.1	Peak Stage
7	5.16	4.9	17.1	Inside TOB

Attenuation Check	
Peak Stage Vol. =	12.1 ac.ft.
Treatment Vol. =	3.2 ac.ft.
Delta Vol. =	8.9 ac.ft.
Att. Vol. Req. =	0.0
Good - Delta Vol > Att. Vol. Req.	

6.37 (ac.) **Total pond area as shown on drainage maps includes 15 foot berms and tie-downs**

Treatment Volume Provided (ac.ft.) = 3.22
Total Pavement Treated (ac.) = 20.6

Existing Linear SMF Swale (Dry Detention)
Sub-Basin Location:Peters to Broward

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Tot. Volume (ac.ft.)	
4.5	0.96	0	0	
5.5	1.89	1.4	1.4	
6.5	2.9	2.4	3.8	Treatment Stage
7.5	3.87	3.4	7.2	
7.6	3.97	0.4	7.6	Peak Stage
8.5	4.82	4.0	11.1	Inside TOB

Attenuation Check	
Stage Vol. =	7.6 ac.ft.
Tre... Vol. =	...8 ac.ft.
Delta Vol. =	...8 ac.ft.
... Vol. Req. =	1.0 ac.ft.
Good - Del... Vol > Att. Vol. Req.	

Previously constructed linear detention swale including pond ... tie-downs. No ...ional area required.

Treatment Volume Provided (ac.ft.) = 3.8
Total Pavement Treated (ac.) = 24.4

Pond Alternative 2B (Wet Detention) - Existing pond expanded within the large infield ...
Sub-Basin Location:Sunrise to Oakland Park

Stage (Elev)	Area (ac)	Inc. Volume (ac...	Tot. Volume...	
2	2.5	0	0	
2.50	2.58	1.3	1...	...reatment Stage
4	2.81	4.0	5...	
6	3.36	...	11.5	...ak Stage
7.5	3.92		16...	...side TOB

6.2 (ac.) **Total pond area incl... original pon... ...otprint as shown on drainage maps includes 15 foot berms and tie-downs**

Treatment Volume Provided (ac.ft.) = 1.3
Total Pavement Treated (ac.) = 6.1

Attenuation Check	
Peak Stage Vol. =	17.5 ac.ft.
Treatment Vol. =	1.9 ac.ft.
Delta Vol. =	15.6 ac.ft.
Att. Vol. Req. =	9.2 ac.ft.
Wet Pond Att. =	5.5 ac.ft.
Total Att. =	14.7 ac.ft.
Good - Delta Vol > Att. Vol. Req.	

Sunrise Interchange Infield Areas A thru E (Wet Detention)
Sub-Basin Location:Sunrise to Oakland Park

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
2	1.24	0	0	
2.50	1.35	0.6	0.6	Treatment Stage
6	2.08	6.0	6.0	Peak Stage
8	2.59	4.7	10.7	Inside TOB

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

5.23 (ac.) **Total infield pond areas A thru E including original pond footprint as shown on drainage maps includes 15 foot berms and tie-downs**

Treatment Volume Provided (ac.ft.) = 0.6
Total Pavement Treated (ac.) = 3.1

Treatment Check			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
Peters to Broward	25.32	24.4	16.96
Broward to Sunrise	25	20.6	17.6
Sunrise to Oakland Park	71.91	9.2	18.71
Total	122.23	54.2	53.3
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

C-12 Basin

Peters Road to Oakland Park Blvd.

Existing And Proposed Required Attenuation Supporting Calculations

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Proposed Attenuation Volume	**Date:**	12/7/2022

Peters Road to Broward Blvd.

C-12 Canal Basin	Required Attenuation Volume			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	44.20	CN	44.20	CN
Pond Area, ac	0.00	100	0.00	100
Impervious Area, ac	21.80	98	25.32	98
Pervious Area, ac	22.40	71	18.88	86
CN	85.6		87.6	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	1.69		1.42	
Runoff Depth (Q), in	12.16		12.43	
Runoff Volume, acre-ft	44.80		45.79	
Volume Differential, acre-ft	**0.99**			

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Existing Attenuation Volume
Peters Road to Broward Blvd.

Prepared by: RMG
Checked by: JAB
Date: 12/7/2022

Peters to Broward (FPID 406094-1, 406103-1) Pre-Development Condition						
Sub-Basin	**Total Area**	**CN**	**Potential Max Ret. (S)**	Rainfall	Runoff Depth (in)	Runoff Volume (ac.ft.)
5A	25.27	94.5	0.58	14	13.33	28.06
5B	18.36	93.2	0.73	14	13.16	20.14
					Total =	**48.20**

Peters to Broward (FPID 406094-1/ 406103-1) Post Development Condition						
Sub-Basin	**Total Area**	**CN**	**Potential Max Ret. (S)**	Rainfall	Runoff Depth (in)	Runoff Volume (ac.ft.)
5A	17.1	91	0.99	14	12.88	18.35
5B (East)	7.25	80	2.50	14	11.39	6.88
5B (West)	10.7	98	0.20	14	13.76	12.27
5C	8.3	89	1.24	14	12.62	8.73
					Total =	**46.23**
					Delta =	**-1.97 ac.ft.**

Note: Within this basin, pre and post development basin runoff have be[en] estimated from th[e] drainage design document for FPID 406094-1 and 406103-1. The delta was determin[ed] to be slightly less than [zero] re within this sub-basin due to converting wet ditches in the pre condition t[o] dry ditches in the post condition. [-]1.00 acre feet was used in the calculation.

Project Name: FTE Widening from South of I-595 to Wiles Rd | **Prepared by:** JAB

Project Number: 44221212201 | **Checked by:** RMG

Task Description: Proposed Attenuation Volume | **Date:** 12/7/2022

Broward Blvd. to Sunrise Blvd.

C-12 Canal Basin	Required Attenuation Volume			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	46.29	CN	46.29	CN
Pond Area, ac	6.43	100	4.07	100
Impervious Area, ac	23.87	98	25.00	98
Pervious Area, ac	15.99	74	17.22	74
CN	90.0		89.2	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	1.11		1.[illegible]	
Runoff Depth (Q), in	12.75		12.65	
Runoff Volume, acre-ft	49.18		4[illegible].0	
Volume Differential, acre-ft	-0.37			

Note: Negative attenuation because open water replaced by pa[illegible]ment ar[illegible]er CN Value. Attenuation value shown as 0 ac.ft

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	RMG
Project Number:	44221212201	**Checked by:**	JAB
Task Description:	Existing Attenuation Volume	**Date:**	12/7/2022

Broward to Sunrise

Broward to Sunrise (FPID 406094-1, 406103-1) Pre-Development Condition						
Sub-Basin	**Total Area**	**CN**	**Potential Max Ret. (S)**	Rainfall	Runoff Depth (in)	Runoff Volume (ac.ft.)
6A	28.88	88	1.36	14	12.49	30.05
6B	19.92	94	0.64	14	13.26	22.02
Sunrise East	5.86	96	0.42	14	13.51	6.60
Sunrise West	4.17	94	0.64	14	13.26	4.61
	58.83				**Total =**	**63.27 ac.ft.**

Broward to Sunrise (FPID 406094-1/ 406103-1) Post Development Condition						
Sub-Basin	**Total Area**	**CN**	**Potential Max Ret. (S)**	Rainfall	Runoff Depth (in)	Runoff Volume (ac.ft.)
6A	25.1	82	2.20	14	11.67	24.41
6B	20.94	95	0.53	14	13.39	23.36
6C	3.97	95	0.53	14	13.39	4.43
Sunrise East	4.5	98	0.20	14	13.[illegible]	5.16
Sunrise West	4.2	97	0.31	[illegible]	13.64	4.77
	58.71				**Total =**	**62.14 ac.ft.**
					Delta =	**-1.14 ac.ft.**

Note: Within this basin, pre and post development basin runoff have b[illegible] estimated from the drainage design document for FPID 406094-1 and 40610[illegible] delta was deter[illegible]d to be slightly less than the pre within this sub-basin due to converting wet di[illegible]es in th[illegible] condition t[illegible]y ditches in the post condition. 0.00 acre feet was used in the calculatio[illegible]

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
Sunrise Blvd. to Oakland Park Blvd.

Prepared by: JAB
Checked by: RMG
Date: 12/7/2022

C-12 Canal Basin	Required Attenuation Volume			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	128.09	CN	128.09	CN
Pond Area, ac	6.62	100	6.23	100
Impervious Area, ac	56.79	98	71.91	98
Pervious Area, ac	64.68	72	49.95	74
CN	85.0		88.9	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	1.77		1.25	
Runoff Depth (Q), in	12.08		12.61	
Runoff Volume, acre-ft	128.98		134.58	
Volume Differential, acre-ft	**5.60**			

Draft/subject to change

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Existing Attenuation Volume

Prepared by: RMG
Checked by: JAB
Date: 12/7/2022

Sunrise to Oakland Park

Sunrise to Oakland Park (FPID 406094-1, 406103-1,) Pre-Development Condition						
Sub-Basin	Total Area	CN	Potential Max Ret. (S)	Rainfall	Runoff Depth (in)	Runoff Volume (ac.ft.)
7A	17.63	85	1.76	14	12.08	17.75
7B	2.08	90	1.11	14	12.75	2.21
7C	2.21	85	1.76	14	12.08	2.23
7D	1.93	92	0.87	14	13.01	2.09
7E	16.4	86	1.63	14	12.22	16.70
7G	0.38	98	0.20	14	13.76	0.44
7H	4.57	91	0.99	14	12.88	4.90
7I	6.03	88	1.36	14	12.49	6.27
7J	1.51	88	1.36	14	12.49	1.57
7K	3.09	83	2.05	14	11.81	3.04
7L	11.02	87	1.49	14	12.35	11.34
B003_020	11.58	62	6.13	14	8.63	8.33
B003_030	2.98	94	0.64	14	13.26	3.29
B003_040	5.83	86	1.63	14	12.22	5.94
B003_050	0.97	94	0.64	14	26	1.07
B003_060	4.34	91	0.99	14	12	4.66
B003_070	1.96	94	0.64	14	13.26	2.17
B003_080	9.65	96	0.42	14	13.51	10.87
B003_090	12.32	96	0.42	14	13.51	13.87
B003_100	4.76	96	0.42	14	13.51	5.36
B002	17.94	74	3.51	14	10.52	15.72
B005	5.22	80	2.50	14	11.39	4.95
					Total =	144.79 ac.ft.

Sunrise to Oakland Park (FPID 406094-1, 406103-1) Post Development Condition						
Sub-Basin	Total Area	CN	Potential Max Ret.	Rainfall	Runoff Depth (in)	Runoff Volume (ac.ft.)
7A	19.2	91	0.99	14	12.88	20.61
7B	1		1.11	14	12.75	2.07
7C	.71	87	1.49	14	12.35	2.79
7D	2	88	1.36	14	12.49	17.29
7E	10.6	89.5	1.17	14	12.68	11.25
7F	3.09	83	2.05	14	11.81	3.04
7G	1.77	89	1.24	14	12.62	1.86
7H	5.83	93	0.75	14	13.14	6.38
7I	4.95	92	0.87	14	13.01	5.37
B003_020	11.58	62	6.13	14	8.63	8.33
B003_030	2.98	95	0.53	14	13.39	3.32
B003_040	5.83	87	1.49	14	12.35	6.00
B003_050	0.97	94	0.64	14	13.26	1.07
B003_060	4.34	91	0.99	14	12.88	4.66
B003_070	1.96	95	0.53	14	13.39	2.19
B003_080	9.65	96	0.42	14	13.51	10.87
B003_090	12.32	96	0.42	14	13.51	13.87
B003_100	4.76	94	0.64	14	13.26	5.26
B002	17.94	81	2.35	14	11.53	17.24
B005	5.22	80	2.50	14	11.39	4.95
					Total =	148.43 ac.ft.
					Delta =	3.64 ac.ft.

Note: Within this basin, pre and post development basin runoff have been estimated from the drainage design document for FPID 406094-1 and 406103-1.

C-12 Basin

Peters Road to Oakland Park Blvd.

Proposed Wet Pond Attenuation Supporting Calculations

Note: These calculations were developed for wet pond alternatives where the pond CN value changes due to the change in land use.

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuati
Peters Road to Oakland Park Boulevard

Prepared by: JAB
Checked by: RMG
Date: 12/7/2022

Basin C-12
Attenuation needed for Wet Pond

Curve Number Calculations - Infield Areas A thru E (Pond Alternatives 1, 2)					
Pre-Development Condition					
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	1.24 ac	A	39	48.36	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	0.00 ac		100	0.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**1.24 ac**			48.36	**39.0 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	1.24 ac		100	124.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**1.24 ac**			124.00	**100.0 = Weighted CN**

Sunrise Interchange Infield Areas A thru E	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	1.24	CN	1.24	CN
Pond Area, ac	0.00	100	1.24	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	1.24	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	0.46			
Volume Differential, acre-ft	**0.99**			

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Pond Attenuation
Peters Road to Oakland Park Boulevard

Prepared by: JAB
Checked by: RMG
Date: 12/7/2022

Basin C-12
Attenuation needed for Wet Pond

Curve Number Calculations - Expanded Infield Area Pond					
Pre-Development Condition					
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	5.65 ac	A	39	220.35	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	0.00 ac		100	0.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**5.65 ac**			220.35	**39.0 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	5.65 ac		100	565.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**5.65 ac**			565.00	**100.0 = Weighted CN**

Expanded infield area	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	5.65	CN	5.65	CN
Pond Area, ac	0.00	100	5.65	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	5.65	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	2.10			
Volume Differential, acre-ft	**4.49**			

Total Wet Pond Attenuation Required = **5.48 ac.** (Repr ts sum of wet tention requi for infield Areas A thru E and Expanded Pond Infield Area)

C-13 Basin

Oakland Park Blvd. to SR 7

Pond Sizing Calculations

C-13 Basin

Oakland Park Blvd. to SR 7

Stormwater Scenario Sizing Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements C-13 Basin (Oakland Park to SR 7)
Stormwater Scenario No. 1 - Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/23/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
Oakland Park to C-13	17.37	10.05	27.42	41.04
C-13 to Commercial	9.70	13.72	23.42	49.84
Commercial to SR 7 (South)	3.19	0	3.19	3.19
Commercial to SR 7 (North)	1.99	1.67	3.66	33.74
Total	32.25	25.44	57.69	127.81

Notes:
1. The existing treated imp. area between Comm. and SR 7 excludes the treatment area associated with the existing interchange pond.
2. The existing treated imp. area between Oakland Park and C-13 includes previously permitted treatment for Rock Island Road

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
Oakland Park to C-13	5.71	4.28	8.55	6.41	11.93
C-13 to Commercial	4.88	3.66	10.38	7.79	6.10
Commercial to SR 7 (South)	1.43	1.07	7.69	5.77	3.24
Total	12.02	9.01	26.63	19.97	21.27

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 1A (Wet Detention)
Sub-Basin Location:Oakland Park to C-13

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
3	8.06	0	0	
4.05	8.33	8.6	8.6	Treatment stage
5	8.58	8.0	16.6	
6	8.84	8.7	25.4	
7	9.11	9.0	34.3	Peak Stage
8	9.38	9.2	43.6	Inside TOB

10.41 (ac.) **Total pond area shown on drainage maps includes 15 foot berms and tie-downs.**

Treatment Volume Provided (ac.ft.) = 8.61
Total Pavement Treated (ac.) = 41.3

Attenuation Check		
Peak Stage Vol. =	34.3	ac.ft.
Treatment Vol. =	6	ac.ft.
Delta Vol. =	2	ac.ft.
Att. Vol. Req. =	18.0	ac.ft.
Wet Pond Att. =	5.9	ac.ft.
Total Att. =	24.0	ac.ft.
Good - Delta Vol > Tot. Att.		

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Pond Alternative 1B-1 (Ramp Wet Detention)
Sub-Basin Location:Commercial to SR 7

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
3	1.92			
3.85	2.01	1.7	1.7	Treatment Stage
5	2.13	2.4	4.1	
6	2.24	2.1	6.2	Peak Stage
7	2.35	2.1	6.3	Inside TOB

2.78 (ac.) **Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.**

Treatment Volume Provided (ac.ft.) = 1.7
Total Pavement Treated (ac.) = 8.0

Attenuation Check		
Peak Stage Vol. =	13.2	ac.ft.
Treatment Vol. =	3.5	ac.ft.
Delta Vol. =	9.7	ac.ft.
Att. Vol. Req. =	3.2	ac.ft.
Wet Pond Att. =	3.0	ac.ft.
Total Att. =	6.3	ac.ft.
Good - Delta Vol > Att. Vol. Req.		

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Pond Alternative 1B-2 (Ramp Wet Detention)
Sub-Basin Location:Commercial to SR 7

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
3	2.11	0	0	
3.85	2.22	1.8	1.8	Treatment Stage
5	2.38	2.6	4.5	
6	2.51	2.4	6.9	Peak Stage
7	2.65	2.6	7.1	Inside TOB

3.19 (ac.) **Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.**

Treatment Volume Provided (ac.ft.) = 1.8
Total Pavement Treated (ac.) = 8.8

Treatment			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
Oakland to C-13	41.04	41.3	27.42
C-13 to Commerc.	49.84	0.0	23.42
Comm. To SR 7 (So)	3.19	8.0	3.19
Comm. To SR 7 (No)	33.74	8.8	3.66
Total	127.81	58.2	57.7
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements C-13 Basin (Oakland Park to SR 7)
Stormwater Scenario No. 2 - Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/23/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
Oakland Park to C-13	17.36	10.05	27.41	41.04
C-13 to Commercial	9.70	13.72	23.42	49.84
Commercial to SR 7	5.19	1.67	6.86	33.74
Total	32.25	25.44	57.69	124.62

Notes:
1. The existing treated imp. area between Comm. and SR 7 excludes the treatment area associated with the existing interchange pond.
2. The existing treated imp. area between Oakland Park and C-13 includes previously permitted treatment for Rock Island Road

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
Oakland Park to C-13	5.71	4.28	8.55	6.41	11.93
C-13 to Commercial	4.88	3.66	10.38	7.79	6.1
Commercial to SR 7	1.43	1.07	7.03	5.27	3.24
Total	12.02	9.01	25.96	19.47	21.27

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 2A (Wet Detention)
Sub-Basin Location:Oakland Park to C-13 and C-13 to Commerical

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
3	7.90	0	0	
4.1	8.27	8.9	8.9	Treatment stage
5	8.57	7.6	16.5	
6	8.91	8.7	25.2	
7	9.26	9.1	34.3	Peak Stage
8	9.61	9.4	43.7	Inside TOB

10.96 (ac.) **Total pond area shown on drainage maps includes 15 foot berms and tie-downs.**

Treatment Volume Provided (ac.ft.) = 8.89
Total Pavement Treated (ac.) = 42.7

Attenuation Check	
Peak Stage Vol. =	34.3 ac.ft.
Treatment Vol. =	8.9 ac.ft.
Delta Vol. =	ac.ft.
Att. Vol. Req. =	18.0 ac.ft.
Wet Pond Att. =	6.5 ac.ft.
Total Att. =	24.6 ac.ft.
Good - Delta Vol > Tot. Att.	

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Pond Alternative 2B-1 (Ramp Wet Detention)
Sub-Basin Location:Commercial to SR 7

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
3	1.92	0	0	
4.12	2.04	2.2	2.2	Treatment Stage
5	2.13		4.1	
6	2.24		6.2	Peak Stage
7	2.35	2.3	6.3	Inside TOB

2.78 (ac.) **Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.**

Treatment Volume Provided (ac.ft.) = 2.2
Total Pavement Treated (ac.) =

Attenuation Check	
Peak Stage Vol. =	9.3 ac.ft.
Treatment Vol. =	3.2 ac.ft.
Delta Vol. =	6.1 ac.ft.
Att. Vol. Req. =	3.2 ac.ft.
Wet Pond Att. =	2.5 ac.ft.
Total Att. =	5.7 ac.ft.
Good - Delta Vol > Tot. Att.	

Pond Alternative 2B-2 (Off-site Wet Detention)
Sub-Basin Location:Commercial to SR 7

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
3	0.81	0	0	
4.12	0.97	1.0	1.0	Treatment Stage
5	1.10	0.9	1.9	
6	1.24	1.2	3.1	Peak Stage
7	1.39	1.3	3.2	Inside TOB

1.98 (ac.) **Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.**

Treatment Volume Provided (ac.ft.) = 1.0
Total Pavement Treated (ac.) = 4.8

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Treatment			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
Oakland to C-13	41.04	42.7	27.41
C-13 to Commerc.	49.84	0.0	23.42
Commerc. To SR 7	33.74	15.4	6.86
Total	124.62	58.1	57.7
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

Draft/subject to change

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements C13 Basin (Oakland Park to SR 7)
Stormwater Scenario No. 3 - Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/23/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
Oakland Park to C-13	17.37	10.05	27.42	41.04
C-13 to Commercial	9.70	13.72	23.42	49.84
Commercial to SR 7	5.19	1.67	6.86	33.74
Total	32.26	25.44	57.7	124.62

Notes:
1. The existing treated imp. area between Comm. and SR 7 excludes the treatment area associated with the existing interchange pond.
2. The treatment area between Commercial and SR 7 is split between north and south because 3B-1 and 3B-2 cannot be connected hydraulically and have different allowable treatment stages.
3. The existing treated imp. area between Oakland Park and C-13 includes previously permitted treatment for Rock Island Road

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
Oakland Park to C-13	5.71	4.28	8.55	6.41	11.93
C-13 to Commercial	4.88	3.66	10.38	7.79	6.1
Commercial to SR 7	1.43	1.07	7.03	5.27	3.24
Total	12.02	9.02	25.96	19.47	21.27

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 3A (Wet Detention)
Sub-Basin Location:Oakland Park to C-13 and C-13 to Commerical

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
3	8.09	0	0	
4	8.35	8.2	8.2	Treatment stage
5	8.60	8.5	16.7	
6	8.84	8.7	25.4	
7	9.10	9.0	34.4	Peak Stage
8	9.35	9.2	43.6	Inside TOB
10.34 (ac.)	**Total pond area shown on drainage maps includes 15 foot berms and tie-downs.**			

Treatment Volume Provided (ac.ft.) = 8.22
Total Pavement Treated (ac.) = 39.4

Attenuation Check	
Peak Stage Vol. =	ac.ft.
Treatment Vol. =	8.2 ac.ft.
Delta Vol. =	26.2 ac.ft.
Att. Vol. Req. =	18.0 ac.ft.
Wet Pond Att. =	6.6 ac.ft.
Total Att. =	24.7 ac.ft.
Good - Delta Vol > Tot. Att.	

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Pond Alternative 3B (Wet Detention)
Sub-Basin Location:Commercial to SR 7

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
3	3.21	0		
4.23	3.39	4.1	4.1	Treatment Stage
5	3.51	2.7	6.7	
6	3.67		10.5	Peak Stage
7	3.82		10.3	Inside TOB
4.44 (ac.)	**Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.**			

Treatment Volume Provided (ac.ft.) = 4.1
Total Pavement Treated (ac.) = 19.5

Attenuation Check	
Peak Stage Vol. =	10.5 ac.ft.
Treatment Vol. =	4.1 ac.ft.
Delta Vol. =	6.4 ac.ft.
Att. Vol. Req. =	3.24 ac.ft.
Wet Pond Att. =	2.70 ac.ft.
Total Att. =	5.94 ac.ft.
Good - Delta Vol > Att. Vol. Req.	

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Treatment			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
Oakland to C-13	41.04	39.4	27.42
C-13 to Commerc.	49.84	0.0	23.42
Comm. To SR 7 (So)	33.74	19.5	6.86
Total	124.62	58.9	57.7
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

C-13 Basin

Oakland Park Blvd. to SR 7

Existing And Proposed Required Attenuation

Supporting Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: P:roposed Attenuation Volume
Oakland Park Blvd. to C-13 Canal

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

C-13 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	79.00	CN	79.00	CN
Pond Area, ac	4.39	100	2.18	100
Impervious Area, ac	23.68	98	41.04	98
Pervious Area, ac	50.93	40	35.78	39
CN	60.7		71.3	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	6.48		.02	
Runoff Depth (Q), in	8.41		10.12	
Runoff Volume, acre-ft	55.39		66.60	
Volume Differential, acre-ft	11.2			

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	RMG
Project Number:	44221212201	**Checked by:**	JAB
Task Description:	Existing Attenuation Volume	**Date:**	12/9/2022

Oakland Park to C-13

Oakland Park to C-13 (FPID 406097-1) Pre-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B011	5.06	203898	4.68
B012_008	1.89	91816	2.11
B012_006	2.38	114536	2.63
B012_004	4.3	204961	4.71
B012_002	1.48	70545	1.62
B012_008OFF	7.43	354155	8.13
B012_006OFF	2.53	122907	2.82
B012_004OFF	1.71	79917	1.83
B012_002OFF	0.38	18632	0.43
		Total =	**28.96 ac.ft.**

Oakland Park to C-13 (FPID 406097-1) Post Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Potential Max Ret. (S)**
B011	5.06	231698	5.32
B012_008	1.89	92670	2.13
B012_006	2.38	114536	2.63
B012_004	4.3	[illegible]	4.75
B012_002	1.48	[illegible]1224	1.64
B012_008OFF	7.43	[illegible]	8.13
B012_006OFF	2.53	[illegible]	2.82
B012_004OFF	[illegible]	799[illegible]	1.83
B012_002OFF	[illegible].38	1863[illegible]	0.43
		[illegible]al =	**29.68 ac.ft.**
		Delta =	**0.72 ac.ft.**

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
C-13 to Commercial Blvd.

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

C-13 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	67.35	CN	67.35	CN
Pond Area, ac	7.58	100	3.31	100
Impervious Area, ac	40.14	98	49.84	98
Pervious Area, ac	19.63	53	14.20	49
CN	85.0		87.8	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	1.77		1.39	
Runoff Depth (Q), in	12.08		12.46	
Runoff Volume, acre-ft	67.80		69.93	
Volume Differential, acre-ft	**2.13**			

Draft/subject to change

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	RMG
Project Number:	44221212201	**Checked by:**	JAB
Task Description:	Existing Attenuation Volulme	**Date:**	12/9/2022

C-13 to Commercial

C-13 to Commercial (FPID 406097-1) Pre-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B011	17.36	708175	16.26
B012_008	26.5	997027	22.89
B012_006	2.52	119970	2.75
		Total =	**41.90 ac.ft.**

C-13 to Commercial (FPID 406097-1) Post Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Potential Max Ret. (S)**
B011	5.06	769334	17.6
B012_008	1.89	1108908	
B012_006	2.38	119970	2.75
		Total =	**45.87 ac.**
		Delta =	**.97 ac.ft.**

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
Commercial Blvd. to SR 7

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

C-13 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	64.28	CN	64.28	CN
Pond Area, ac	8.93	100	8.23	100
Impervious Area, ac	33.59	98	38.78	98
Pervious Area, ac	21.76	45	17.27	44
CN	80.4		83.8	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	2.44		1.93	
Runoff Depth (Q), in	11.44		11.9	
Runoff Volume, acre-ft	61.29		63.86	
Volume Differential, acre-ft	**2.58**			

Draft/subject to change

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	RMG
Project Number:	44221212201	**Checked by:**	JAB
Task Description:	Existing Attenuation Volume	**Date:**	12/9/2022

Commercial to SR-7

Commercial to SR 7 (FPID 406097-1) Pre-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B020	5.06	929375	21.34
B019	1.89	631468	14.50
B016	2.38	255458	5.86
B017	4.3	69757	1.60
B018	1.48	307629	7.06
		Total =	**50.36 ac.ft.**

Commercial to SR 7 (FPID 406097-1) Post Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Potential Max Ret. (**
B020	24.35	927375	21.29
B019	17.29	631468	14.50
B016	6.51	269081	6.18
B017	1.91	69757	.60
B018	8.06	324786	7.46
		Total =	**51.02 ac.ft.**

lta = **0.66 ac.ft.**

C-13 Basin

Oakland Park Blvd. to SR 7

Proposed Wet Pond Attenuation Supporting Calculations

Note: These calculations were developed for wet pond alternatives where the pond CN value changes due to the change in land use.

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Oakland Park Blvd. to SR 7

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-13
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 1A

Pre-Development Condition

Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	7.61 ac	A	39	296.79	Open Spaces, Lawns/Good Condition	7.61
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.69 ac		98	67.62	Roadway Pavement	
Wetted Pond Area	0.00 ac		100	0.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**8.30 ac**			364.41	**43.9 = Weighted CN**	

Post Development Condition

Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	0.00
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.69 ac		98	67.62	Roadway Pavement	
Wetted Pond Area	7.61 ac		100	761.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**8.30 ac**			828.62	**99.8 = Weighted CN**	

Pond Alt. 1A	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	8.30	CN	8.30	CN
Pond Area, ac	0.00	100	7.61	100
Impervious Area, ac	0.69	98	0.69	98
Pervious Area, ac	7.61	39	0.00	39
CN	43.9		99.8	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	12.78		0.02	
Runoff Depth (Q), in	5.41		13.98	
Runoff Volume, acre-ft	3.74		9.6	
Volume Differential, acre-ft	**5.93**			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Oakland Park Blvd. to SR 7

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-13
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 1B						
Pre-Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	3.39 ac	A	39	132.21	Open Spaces, Lawns/Good Condition	3.39
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	0.00 ac		100	0.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**3.39 ac**			132.21	**39.0 = Weighted CN**	

Post Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	0.00
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	3.39 ac		100	339.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**3.39 ac**			339.00	**100.0 = Weighted CN**	

Pond Alt. 1B	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	3.39	CN	3.39	CN
Pond Area, ac	0.00	100	3.39	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	3.39	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	1.26		3.9	
Volume Differential, acre-ft	**2.70**			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Oakland Park Blvd. to SR 7

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-13
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 2A						
Pre-Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	8.23 ac	A	39	320.97	Open Spaces, Lawns/Good Condition	8.23
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	0.00 ac		100	0.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**8.23 ac**			320.97	**39.0 = Weighted CN**	

Post Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	0.00
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	8.23 ac		100	823.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**8.23 ac**			823.00	**100.0 = Weighted CN**	

Pond Alt. 2A	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	8.23	CN	8.23	CN
Pond Area, ac	0.00	100	8.23	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	8.23	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	3.06		9.6	
Volume Differential, acre-ft	**6.54**			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Oakland Park Blvd. to SR 7

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-13
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 2B-1						
Pre-Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	2.17 ac	A	39	84.63	Open Spaces, Lawns/Good Condition	2.17
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	0.00 ac		100	0.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**2.17 ac**			84.63	**39.0 = Weighted CN**	

Post Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	0.00
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	2.17 ac		100	217.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**2.17 ac**			217.00	**100.0 = Weighted CN**	

Pond Alt. 2B-1	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	2.17	CN	2.17	CN
Pond Area, ac	0.00	100	2.17	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	2.17	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	0.81		2.5	
Volume Differential, acre-ft	**1.73**			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Oakland Park Blvd. to SR 7

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-13
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 2B-2						
Pre-Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.92 ac	A	39	35.88	Open Spaces, Lawns/Good Condition	0.92
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	0.00 ac		100	0.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**0.92 ac**			35.88	**39.0 = Weighted CN**	

Post Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	0.00
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	0.92 ac		100	92.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**0.92 ac**			92.00	**100.0 = Weighted CN**	

Pond Alt. 2B-2	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	0.92	CN	0.92	CN
Pond Area, ac	0.00	100	0.92	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	0.92	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	0.34		1.0	
Volume Differential, acre-ft	**0.73**			

Total Wet Pond Attenuation Required = **2.46 ac.** (Repre ts sum of wet tention requ d for pond alternatives 2B-1 & 2B-2)

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Oakland Park Blvd. to SR 7

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-13
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 3A						
Pre-Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	8.34 ac	A	39	325.26	Open Spaces, Lawns/Good Condition	8.34
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	0.00 ac		100	0.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**8.34 ac**			325.26	**39.0 = Weighted CN**	

Post Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	0.00
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	8.34 ac		100	834.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**8.34 ac**			834.00	**100.0 = Weighted CN**	

Pond Alt. 3A	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	8.34	CN	8.34	CN
Pond Area, ac	0.00	100	8.34	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	8.34	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	3.10		9.7	
Volume Differential, acre-ft	**6.63**			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Oakland Park Blvd. to SR 7

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-13
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 3B-1						
Pre-Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	2.17 ac	A	39	84.63	Open Spaces, Lawns/Good Condition	2.17
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	0.00 ac		100	0.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**2.17 ac**			84.63	**39.0 = Weighted CN**	

Post Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	0.00
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	2.17 ac		100	217.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**2.17 ac**			217.00	**100.0 = Weighted CN**	

Pond Alt. 3B-1	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	2.17	CN	2.17	CN
Pond Area, ac	0.00	100	2.17	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	2.17	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	0.81		2.5	
Volume Differential, acre-ft	**1.73**			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Oakland Park Blvd. to SR 7

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-13
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 3B-2						
Pre-Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	2.80
Pervious Area	2.80 ac	B	61	170.80	Open Spaces, Lawns/Good Condition	61.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	0.00 ac		100	0.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**2.80 ac**			170.80	**61.0 = Weighted CN**	

Post Development Condition						
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.	CN pervious (including dry pond)
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition	0.00
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition	39.00
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition	
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition	
Impervious Area	0.00 ac		98	0.00	Roadway Pavement	
Wetted Pond Area	2.80 ac		100	280.00	Pond	
Dry Pond Area	0.00 ac	D	80	0.00	Pond	
Total Area	**2.80 ac**			280.00	**100.0 = Weighted CN**	

Pond Alt. 3B-2	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	2.80	CN	2.80	CN
Pond Area, ac	0.00	100	2.80	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	2.80	61	0.00	39
CN	61.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	6.39		0.00	
Runoff Depth (Q), in	8.47		14.00	
Runoff Volume, acre-ft	1.98		3.2	
Volume Differential, acre-ft	**1.29**			

Total Wet Pond Attenuation Required = **3.02 ac.** (Repre ts sum of wet tention requ d for pond alternatives 3B-1 & 3B-2)

C-14 Basin

SR 7 to C-14 Canal

Pond Sizing Calculations

C-14 Basin

SR 7 to C-14

Stormwater Scenario Sizing Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements (SR 7 to C-14)
Stormwater Scenario No. 1 Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/25/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
SR 7 to Cypress Creek	2.98	6.44	9.42	11.26
Cypress Creek to Lyons (South)	6.32	15.88	22.20	22.20
Cypress Creek to Lyons (North)	3.34	12.73	16.07	16.07
Lyons to C-14 Canal (South Service Plaza)	3.89	4.07	7.96	8.43
Lyons to C-14 Canal (North Service Plaza)	5.93	1.81	7.74	15.65
Total	22.46	40.93	63.39	73.61

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
SR 7 to Cypress Creek	1.96	1.47	2.35	1.76	2.54
Cypress Creek to Lyons (South)	4.63	3.47	4.63	3.47	4.84
Cypress Creek to Lyons (North)	3.35	2.51	3.35	2.51	3.53
Lyons to C-14 Canal (South Service Plaza)	1.66	1.24	1.76	1.32	5.02
Lyons to C-14 Canal (North Service Plaza)	1.61	1.21	3.26	2.45	2.80
Total	13.21	9.90	15.34	11.50	18.73

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 1A-1 and 1A-2 (Wet Detention)
Sub-Basin Location:SR 7 to Lyons (South)

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
5.5	7.07	0	0	
6.46	7.34	6.9	6.9	Treatment Stage
8	7.78	11.6	18.6	Peak Stage
9.0	8.08	7.9	26.5	

9.53 (ac.) Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.

Attenuation Check	
Peak Stage Vol. =	18.6 ac.ft.
Treatment Vol. =	
Delta Vol. =	2.6 ac.ft.
Att. Vol. Req. =	7.4 ac.ft.
Wet Pond Att. =	2.6 ac.ft.
Total Att. =	9.9 ac.ft.
Good - Delta Vol > Tot. Att.	

Treatment Volume Provided (ac.ft.) = 6.9
Total Pavement Treated (ac.) = 33.2

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation
See the associated wet pond attenuation calculations.

Pond Alternative 1B - (Wet Detention)
Sub-Basin Location:Cypress Creek to Lyons (North)

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
5.5	4.41	0	0	
6.4	4.57	4.0	4.0	Treatment stage
7	4.68	2.8	6.8	
8	4.86	4.8	11.6	Peak Stage
9	5.04	5.0	16.5	

5.75 (ac.) Total pond area shown on drainage maps includes 15 foot berms and tie-downs.

Attenuation Check	
Peak Stage Vol. =	11.6 ac.ft.
Treatment Vol. =	4.0 ac.ft.
Delta Vol. =	7.5 ac.ft.
Att. Vol. Req. =	3.53 ac.ft.
Wet Pond Att. =	2.1 ac.ft.
Total Att. =	5.6 ac.ft.
Good - Delta Vol > Att. Vol. Req.	

Treatment Volume Provided (ac.ft.) = 4.04
Total Pavement Treated (ac.) = 19.4

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation
See the associated wet pond attenuation calculations.

Pond Alternative 1C (South) - South Service Plaza (Wet Detention)
Sub-Basin Location: South Pompano Service Plaza

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
6	5.77	0	0	
6.3	5.83	1.7	1.7	Treatment stage
7	5.96	4.1	5.9	
8.3	6.21	7.9	13.8	Peak Stage
9.3	6.41	6.4	20.1	

7.16 (ac.) Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.

Attenuation Check	
Peak Stage Vol. =	13.8 ac.ft.
Treatment Vol. =	1.7 ac.ft.
Delta Vol. =	12.0 ac.ft.
Att. Vol. Req. =	5.0 ac.ft.
Wet Pond Att. =	6.8 ac.ft.
Total Att. =	11.8 ac.ft.
Good - Delta Vol > Att. Vol. Req.	

Treatment Volume Provided (ac.ft.) = 1.74
Total Pavement Treated (ac.) = 8.3

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation
See the associated wet pond attenuation calculations.

Pond Alternative 1D (North) - North Service Plaza (Wet Detention)
Sub-Basin Location: North Pompano Service Plaza

Note: Under this scenario, the northern half of the Pompano Service Plaza will be treated and attenuated as part of the Expanded Truck Parking Analysis included under separate cover from this PD&E.

Treatment Check			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
SR-7 to Cypress Crk.	11.26	33.2	9.42
Cypress Crk. To Lyons (South)	22.2	0.0	22.2
Cypress Crk. To Lyons (North)	16.1	19.4	16.07
Lyons to Atl. (South)	8.4	8.3	7.96
Lyons to Atl. (North)	15.7	7.7	7.74
Total	73.61	68.7	63.4
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements (SR 7 to C-14)
Stormwater Scenario No. 2 Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/25/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
SR 7 to Cypress Creek	2.98	6.44	9.42	11.26
Cypress Creek to Lyons	9.66	28.61	38.27	38.27
Lyons to C-14 Canal (South Service Plaza)	3.89	4.07	7.96	8.43
Lyons to C-14 Canal (North Service Plaza)	5.93	1.81	7.74	15.65
Total	22.46	40.93	63.39	73.61

1. This scenario utilizes an offsite pond to treat the additional impervious area associated with this improvement and also includes treatment area to account for a partial impact to the existing treatment swale adjacent to the northbound lanes.

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
SR 7 to Cypress Creek	1.96	1.47	2.35	1.76	2.54
Cypress Creek to Lyons	7.97	5.98	7.97	5.98	8.37
Lyons to C-14 Canal (South Service Plaza)	1.66	1.24	1.76	1.32	5.02
Lyons to C-14 Canal (North Service Plaza)	1.61	1.21	3.26	2.45	2.8
Total	13.21	9.90	15.34	11.50	18.73

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 2A (Wet Detention)
Sub-Basin Location: SR 7 to Lyons

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
5.5	13.28	0	0	
6.24	13.53	9.9	9.9	Treatment stage
8	14.11	24.3	34.2	Peak Stage
9	14.45	14.3	48.5	TOB

15.74 (ac.) Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.

Treatment Volume Provided (ac.ft.) = 9.92
Total Pavement Treated (ac.) = 47.6

Attenuation Check		
Peak Stage Vol. =	3	ac.ft.
Treatment Vol. =	9.9	ac.ft.
Delta Vol. =	24.3	ac.ft.
Att. Vol. Req. =	10.9	ac.ft.
Wet Pond Att. =	9.2	ac.ft.
Total Att. =	20.1	ac.ft.
Good - Delta Vol > Tot. Att.		

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Pond Alternative 2B (North) - North Service Plaza (Wet Detention)
Sub-Basin Location: North Pompano Service Plaza

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
6	6.75	0	0	
6.5	6.88	3.4	3.4	tment stage
8.5	7.40	14.3	17	eak Stage
9.5	7.70	7.6	2	
10.5	8.00	7.9		

8.70 (ac.) Total pond area shown on drainage maps incl 15 f berms and tie-downs.

Treatment Volume Provided (ac.ft.) = 3.4
Total Pavement Treated (ac.) = 16

Attenuation Check		
Peak ge Vol. =	17.7	ac.ft.
Treatr Vol. =	3.4	ac.ft.
Delta V	14.3	ac.ft.
Att. Vol. q. =	7.82	ac.ft.
Pond Att. =	5.4	ac.ft.
Att. =	13.2	ac.ft.
Good - Delta Vol > Tot. Att.		

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the eval. See the associated wet pond attenuation calculations.

1. All treatment between SR-7 and Lyons is treated north of Cypress Creek

2. All treatment between Lyons and Atlantic is treated at the north end of the Pompano Service Plaza

Treatment Check			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
SR-7 to Cypress Crk. (1)	11.26	47.6	9.42
Cypress Crk. To Lyons (1)	38.27	NA	38.27
Lyons to Atl. (South) (2)	8.43	NA	7.96
Lyons to Atl. (North) (2)	15.65	16.4	7.74
Total	73.61	64.0	63.4
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

C-14 Basin

SR-7 to C-14 Canal

Existing And Proposed Required Attenuation

Supporting Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
SR 7 to Cypress Creek Road

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

C-14 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	19.82	CN	19.82	CN
Pond Area, ac	2.79	100	2.39	100
Impervious Area, ac	8.28	98	11.26	98
Pervious Area, ac	8.75	51	6.17	52
CN	77.4		83.8	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	2.92		.94	
Runoff Depth (Q), in	11.02		11.92	
Runoff Volume, acre-ft	18.20		19.68	
Volume Differential, acre-ft	**1.48**			

Project Name: FTE Widening from South of I-595 to Wiles Rd | **Prepared by:** RMG
Project Number: 44221212201 | **Checked by:** JAB
Task Description Existing Attenuation Volume | **Date:** 12/9/2022

SR-7 to Cypress Creek

Values taken from FPID 406097-1 (2004)

SR 7 to Cypress Creek (FPID 406097-4) Pre-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B031	5.34	200910	4.61
B033	7.7	384417	8.83
B035	12.49	623218	14.31
B032_40	1.69	79772	1.83
B032_30	1.42	67027	1.54
B032_20	1.42	67027	1.54
B032_10	1.52	71038	1.63
B034	18.87	613547	14.09
BPOND	3.98	143137	3.29
		Total =	**51.66 ac.ft.**

SR 7 to Cypress Creek (FPID 406097-4) Post Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B031	5.34	215181	4.9
B033	7.7	384417	8.
B035	12.49	623218	.31
B032_40	1.69	79772	
B032_30	1.42	67027	1.
B032_20	1.42	67027	1.54
B032_10	1.52	71747	1.65
B034	18.87	613547	14.09
BPOND	3.98	174527	4.01
		Total	**52.72 ac.ft.**
		Delta =	**1.06 ac.ft.**

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
Cypress Creek Road to Lyons Road - South

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

C-14 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	31.66	CN	31.66	CN
Pond Area, ac	0.92	100	0.92	100
Impervious Area, ac	15.38	98	21.70	98
Pervious Area, ac	15.36	74	9.04	74
CN	86.4		91.2	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	1.57		.96	
Runoff Depth (Q), in	12.28		12.91	
Runoff Volume, acre-ft	32.39		34.05	
Volume Differential, acre-ft	**1.66**			

Draft/subject to change

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
Cypress Creek Road to Lyons Road - North

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

C-14 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	23.32	CN	23.32	CN
Pond Area, ac	0.00	100	0.00	100
Impervious Area, ac	12.14	98	15.48	98
Pervious Area, ac	11.18	67	7.84	65
CN	83.1		86.9	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	2.04		.50	
Runoff Depth (Q), in	11.82		12.35	
Runoff Volume, acre-ft	22.97		23.99	
Volume Differential, acre-ft	**1.02**			

Draft/subject to change

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	RMG
Project Number:	44221212201	**Checked by:**	JAB
Task Description	Existing Attenuation Volume	**Date:**	12/9/2022

Cypress Creek to Lyons

Values taken from FPID 406097-1 (2004)

Cypress Creek to Lyons (FPID 406097-4) Pre-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B036	7.28	360214	8.27
B038	8.65	366356	8.41
B039A	5.81	254775	5.85
B039B	4.51	172134	3.95
B040	12.4	493157	11.32
B042	3.8	157067	3.61
B041	3.47	132440	3.04
		Total =	**44.45 ac.ft.**

Cypress Creek to Lyons (FPID 406097-4) Post Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B036	7.28	363449	8.34
B038	8.65	428001	9.83
B039A	10.32	496647	11.40
B040	12.4	555877	12.[illegible]
B042	3.8	189712	[illegible]36
B041	3.47	150445	[illegible]5
		Total =	**50.[illegible] c.ft.**
		Delta =	**5.69 ac.[illegible]**

Project Name: FTE Widening from South of I-595 to Wiles Rd | **Prepared by:** JAB
Project Number: 44221212201 | **Checked by:** RMG
Task Description: Proposed Attenuation Volume | **Date:** 12/9/2022

Lyons Road to South Pompano Service Plaza

C-14 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	43.80	CN	43.80	CN
Pond Area, ac	0.00	100	0.00	100
Impervious Area, ac	10.56	98	14.45	98
Pervious Area, ac	33.24	52	29.35	52
CN	63.1		67.4	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	5.85		.85	
Runoff Depth (Q), in	8.81		9.50	
Runoff Volume, acre-ft	32.17		34.67	
Volume Differential, acre-ft	**2.5**			

Project Name: FTE Widening from South of I-595 to Wiles Rd | **Prepared by:** JAB
oject Number: 44221212201 | **Checked by:** RMG
k Description: Proposed Attenuation Volume | **Date:** 12/9/2022
North Pompano Service Plaza to Atlantic Blvd.

C-14 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	57.44	CN	57.44	CN
Pond Area, ac	2.30	100	1.72	100
Impervious Area, ac	9.72	98	15.65	98
Pervious Area, ac	45.42	57	40.07	57
CN	65.5		69.2	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	5.28		.46	
Runoff Depth (Q), in	9.19		9.78	
Runoff Volume, acre-ft	44.01		46.82	
Volume Differential, acre-ft	**2.80**			

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description Existing Attenuation Volume

Prepared by: RMG
Checked by: JAB
Date: 12/9/2022

Lyons to Atlantic

Values taken from FPID 406097-1 (2004)

South Pompano Service Plaza (FPID 406097-4) Pre-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B051A	7.84	259518	5.96
B051B	1.31	53470	1.23
B053	18.58	668216	15.34
B052A	9.83	319616	7.34
		Total =	**29.86 ac.ft.**

South Pompano Service Plaza (FPID 406097-4) Post-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B051A	7.84	281960	6.47
B051B	1.31	54146	1.24
B053	18.58	688859	15.81
B052A	9.83	385737	8.86
		Total =	**32.39 ac.ft.**
		Delta =	**2.52 ac.ft.**

North Pompano Service Plaza (FPID 406097-4) Pre-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B051C	3.44	127939	2.93
		Total =	**2.93 ac.ft.**

North Pompano Service Plaza (FPID 406097-4) Post-Development Condition			
Sub-Basin	**Total Area**	**Runoff Volume (cf)**	**Runoff Volume (ac.ft.)**
B051C	3.44	127939	2.93
		Total =	**2.93 ac.ft.**
		Delta =	**0.00 ac.ft.**

C-14 Basin

SR 7 to C-14 Canal

Proposed Wet Pond Attenuation Supporting Calculations

Note: These calculations were developed for wet pond alternatives where the pond CN value changes due to the change in land use.

RS&H

Project Name: FTE Widening from FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
SR 7 to Atlantic Blvd.

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

Basin C-14
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 1A-1 and 1A-2					
Pre-Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	1.29 ac	A	39	50.31	Open Spaces, Lawns/Good Condition
Pervious Area	3.37 ac	B	61	205.57	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	0.00 ac		100	0.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**4.66 ac**			255.88	**54.9 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	4.66 ac		100	466.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**4.66 ac**			466.00	**100.0 = Weighted CN**

Pond Alt. 1A-1 and 1A-2	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	4.66	CN	4.66	CN
Pond Area, ac	0.00	100	4.66	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	4.66	55	0.00	39
CN	54.9		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	8.21		0.00	
Runoff Depth (Q), in	7.42		14.00	
Runoff Volume, acre-ft	2.88		5.44	
Volume Differential, acre-ft	**2.55**			

RS&H

Project Name: FTE Widening from FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
SR 7 to Atlantic Blvd.

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

Basin C-14
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 1B					
Pre-Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	4.57 ac	B	61	278.77	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	0.00 ac		100	0.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**4.57 ac**			278.77	**61.0 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	4.57 ac		100	457.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**4.57 ac**			457.00	**100.0 = Weighted CN**

Pond Alt. 1B	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	4.57	CN	4.57	CN
Pond Area, ac	0.00	100	4.57	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	4.57	61	0.00	39
CN	61.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	6.39		0.00	
Runoff Depth (Q), in	8.47		14.00	
Runoff Volume, acre-ft	3.22		5.33	
Volume Differential, acre-ft	**2.11**			

RS&H

Project Name: FTE Widening from FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
SR 7 to Atlantic Blvd.

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

Basin C-14
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 1C					
Pre-Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	1.88 ac	A	39	73.32	Open Spaces, Lawns/Good Condition
Pervious Area	3.96 ac	B	61	241.56	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	0.00 ac		100	0.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**5.84 ac**			314.88	**53.9 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	5.84 ac		100	584.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**5.84 ac**			584.00	**100.0 = Weighted CN**

Pond Alt. 1C	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	0.00	CN	5.84	CN
Pond Area, ac	0.00	100	5.84	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	0.00	0	0.00	0
CN	53.9		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	8.55		0.00	
Runoff Depth (Q), in	7.25		14.00	
Runoff Volume, acre-ft	0.00		6.81	
Volume Differential, acre-ft	**6.81**			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
SR 7 to Atlantic Blvd.

Prepared by: RMG
Checked by:
Date: 12/9/2022

Basin C-14
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 2A					
Pre-Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	8.27 ac	A	39	322.53	Open Spaces, Lawns/Good Condition
Pervious Area	5.84 ac	B	61	356.24	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	0.00 ac		100	0.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**14.11 ac**			678.77	**48.1 = Weighted CN**

Post Development Conditions					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	14.11 ac		100	1411.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**14.11 ac**			1411.00	**100.0 = Weighted CN**

Pond Alt. 2A	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	14.11	CN	14.11	CN
Pond Area, ac	0.00	100	14.11	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	14.11	48	0.00	39
CN	48.1		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	10.79		0.00	
Runoff Depth (Q), in	6.20		14.00	
Runoff Volume, acre-ft	7.29		16.46	
Volume Differential, acre-ft	**9.17**			

RS&H

Project Name: FTE Widening from FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
SR 7 to Atlantic Blvd.

Prepared by: JAB
Checked by: RMG
Date: 5/13/2023

Basin C-14
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 2B					
Pre-Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	6.75 ac	A	39	263.25	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	0.00 ac		100	0.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**6.75 ac**			263.25	**39.0 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	Curve No. (CN)	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	6.75 ac		100	675.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**6.75 ac**			675.00	**100.0 = Weighted CN**

Pond Alt. 2B	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	6.75	CN	6.75	CN
Pond Area, ac	0.00	100	6.75	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	6.75	39	0.00	39
CN	39.0		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	15.64		0.00	
Runoff Depth (Q), in	4.46		14.00	
Runoff Volume, acre-ft	2.51		7.88	
Volume Differential, acre-ft	**5.37**			

C-14 Basin

C-14 Canal to Sample Road

Pond Sizing Calculations

C-14 Basin

C-14 to Sample Road

Stormwater Scenario Sizing Calculations

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements (C-14 to Sample Road)
Stormwater Scenario No. 1 Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/23/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
C-14 to Coconut Creek Parkway	15.01	9.48	24.49	37
Coconut Creek Parkway to Copans Road	11.2	11.83	23.03	41.19
Copans Road to Sample Road	7.25	7.26	14.51	36.14
Total	33.46	28.57	62.03	114.33

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
C-14 to Coconut Creek Parkway	5.10	3.83	7.71	5.78	5.54
Coconut Creek Parkway to Copans Road	4.80	3.60	8.58	6.44	3.7
Copans Road to Sample Road	3.02	2.27	7.53	5.65	2.69
Total	12.92	9.69	23.82	17.86	11.93

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 1A-1 and 1A-2 (Wet Detention)
Sub-Basin Location:Coconut Creek to Copans

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
5.5	5.53	0	0	
6.65	5.87	6.6	6.6	Treatment stage
7	5.97	2.1	8.6	
8	6.26	6.1	14.7	
9	6.56	6.4	21.2	Peak Stage
10	6.87	6.7	27.9	Inside TOB

8.20 (ac.) Total pond area shown on drainage maps includes 15 foot berms and tie-downs.

Attenuation Check	
Peak Stage Vol. =	21.2 ac.ft.
Treatment Vol. =	6.6 ac.ft.
Delta Vol. =	14.6 ac.ft.
Att. Vol. Req. =	9.2 ac.ft.
Wet Pond Att. =	0.0 ac.ft.
Total Att. =	9.2 ac.ft.
Good - Delta Vol > Tot. Att.	

Note: No wet pond attenuation required since no change in existing land use.

Treatment Volume Provided (ac.ft.) = 6.55
Total Pavement Treated (ac.) = 31.5

Pond Alternative 1B (Wet Detention)
Sub-Basin Location:Copans Road to Sample Road

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
7.5	8.31	0	0	
8.3	8.53	6.7	6.7	Treatment stage
8.5	8.58	1.7	8.4	
10	8.70	13	21.4	Peak Stage
11	9.00	8.9	30.3	Inside TOB

16.27 (ac.) Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.

Attenuation Check	
Peak Stage Vol. =	21.4 ac.ft.
Treatment Vol. =	6.7 ac.ft.
Delta Vol. =	14.7 ac.ft.
Att. Vol. Req. =	2.7 ac.ft.
Wet Pond Att. =	1.5 ac.ft.
Total Att. =	4.1 ac.ft.
Good - Delta Vol > Tot. Att.	

Treatment Volume Provided (ac.ft.) = 6.73
Total Pavement Treated (ac.) = 32.3

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Treatment Check			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
C-14 to Coconut	37	0.0	24.49
Coconut to Copans	41.19	31.5	23.03
Copans to Sample	36.14	32.3	14.51
Total	114.33	63.8	62.0
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Estimation of ROW Requirements (C-14 to Sample Road)
Stormwater Scenario No. 2 Stormwater Pond Sizing

Prepared by: RMG
Checked by:
Date: 5/23/2023

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
C-14 to Coconut Creek Parkway	15.01	9.48	24.49	37
Coconut Creek Parkway to Copans Road	11.2	11.83	23.03	41.19
Copans Road to Sample Road	7.25	7.26	14.51	36.14
Total	33.46	28.57	62.03	114.33

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
C-14 to Coconut Creek Parkway	5.10	3.83	7.71	5.78	5.54
Coconut Creek Parkway to Copans Road	4.80	3.60	8.58	6.44	3.7
Copans Road to Sample Road	3.02	2.27	7.53	5.65	2.69
Total	12.92	9.69	23.82	17.86	11.93

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 2A (Wet Detention)
Sub-Basin Location: C-14 to Coconut Creek

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
5.5	3.35	0	0	
5.9	3.43	1.4	1.4	Treatment stage
7	3.65	3.9	5.3	
8	3.85	3.8	9.0	Peak Stage
9	4.05	4.0	13.0	Inside TOB

4.84 (ac.) Total pond area shown on drainage maps includeds 15 foo berms and tie-downs.

Attenuation Check	
Peak Stage [illegible] =	9.0 ac.ft.
Treatm[illegible]ol. =	1.4 ac.ft.
Delt[illegible]ol.	7.6 ac.ft.
[illegible] Vol. Req.	5.5 ac.ft.
Wet Pond Att. =	1.9 ac.ft.
Total Att. =	7.5 ac.ft.
Good [illegible]ta Vol > Tot. Att.	

Treatment Volume Provided (ac.ft.) = 1.36
Total Pavement Treated (ac.) = 6.5

Note:
Wet [illegible]d Attenuation is calculated for those pond areas
[illegible] will be converted from pervious to impervious as part of the evaluation.
[illegible]ee the associated wet pond attenuation calculations.

Pond Alternative 2B-1 and 2B-2 (Wet Detention)
Sub-Basin Location: Coconut Creek to Copans

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
5.5	5.53	[illegible]	[illegible]	
6.4	5.79	5.1	5.1	[illegible]eatment stage
7	5.97	3.5	8.6	
8	6.26	6.1	14.7	
9	6.56	6.4	[illegible]	Peak Stage
10	6.87	[illegible]	27.9	Inside TOB

8.20 (ac.) [illegible]nd area s[illegible]on drainage maps includeds 15 foot berms [illegible]-downs

Attenuation Check	
Peak Stage Vol. =	21.2 ac.ft.
Treatment Vol. =	5.1 ac.ft.
Delta Vol. =	16.1 ac.ft.
Att. Vol. Req. =	3.7 ac.ft.
Wet Pond Att. =	0.0 ac.ft.
Total Att. =	3.7 ac.ft.
Good - Delta Vol > Tot. Att.	

Note: No wet pond attenuation required since no change in existing land use.

Treatment Volume Provided (ac.ft.) = [illegible].10
Total Pavement Treated (ac.) = [illegible]4.5

Pond Alternative 2C (Wet Detention)
Sub-Basin Location:Copans Road to Sample Road

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
7.5	8.31	0	0	
8.3	8.53	6.7	6.7	Treatment Stage
8.5	8.58	1.7	8.4	
10	8.70	13.0	21.4	Peak Stage
11	9.00	8.9	17.3	

10.04 (ac.) Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.

Attenuation Check	
Peak Stage Vol. =	21.4 ac.ft.
Treatment Vol. =	6.7 ac.ft.
Delta Vol. =	14.7 ac.ft.
Att. Vol. Req. =	2.7 ac.ft.
Wet Pond Att. =	1.7 ac.ft.
Total Att. =	4.3 ac.ft.
Good - Delta Vol > Tot. Att.	

Treatment Volume Provided (ac.ft.) = 6.7
Total Pavement Treated (ac.) = 32.3

Note:
Wet Pond Attenuation is calculated for those pond areas that will be converted from pervious to impervious as part of the evaluation. See the associated wet pond attenuation calculations.

Treatment Check			
Sub-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
C-14 to Coconut	37	6.5	24.49
Coconut to Copans	41.19	24.5	23.03
Copans to Sample	36.14	32.3	14.51
Total	114.33	63.3	62.0
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

Draft/subject to change

C-14 Basin

C-14 to Sample Road

Proposed Attenuation

Supporting Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd | **Prepared by:** JAB
Project Number: 44221212201 | **Checked by:** RMG
Task Description: Proposed Attenuation Volume | **Date:** 12/9/2022

Atlantic Blvd. to Coconut Creek Road

C-14 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	61.18	CN	61.18	CN
Pond Area, ac	7.06	100	7.06	100
Impervious Area, ac	21.98	98	36.99	98
Pervious Area, ac	32.14	62	17.13	59
CN	79.4		87.3	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	2.59		.45	
Runoff Depth (Q), in	11.31		12.40	
Runoff Volume, acre-ft	57.67		63.20	
Volume Differential, acre-ft	**5.54**			

Draft/subject to change

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
Coconut Creek to Copans Road

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

C-14 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	89.37	CN	89.37	CN
Pond Area, ac	8.20	100	8.10	100
Impervious Area, ac	30.00	98	41.19	98
Pervious Area, ac	51.17	62	40.08	59
CN	77.3		80.8	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	2.94		.38	
Runoff Depth (Q), in	11.00		11.50	
Runoff Volume, acre-ft	81.93		85.63	
Volume Differential, acre-ft	**3.70**			

Draft/subject to change

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
Copans Road to Sample Road

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

C-14 Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	90.04	CN	90.04	CN
Pond Area, ac	10.37	100	10.12	100
Impervious Area, ac	28.89	98	36.14	98
Pervious Area, ac	50.78	56	43.78	55
CN	74.7		77.2	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	3.38		.96	
Runoff Depth (Q), in	10.63		10.99	
Runoff Volume, acre-ft	79.74		82.43	
Volume Differential, acre-ft	**2.69**			

C-14 Basin

C-14 Canal to Sample Road

Proposed Wet Pond Attenuation Supporting Calculations

Note: These calculations were developed for wet pond alternatives where the pond CN value changes due to the change in land use.

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Atlantic Blvd. to Sample Road

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-14
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 1B					
Pre-Development Condition					
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	2.22 ac	A	39	86.58	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	5.80 ac		100	580.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**8.02 ac**			666.58	**83.1 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	urve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	8.02 ac		100	802.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**8.02 ac**			802.00	**100.0 = Weighted C**

Pond Alt. 1B	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	8.02	CN	8.02	CN
Pond Area, ac	5.80	100	8.02	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	2.22	39	0.00	39
CN	83.1		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	2.03		0.00	
Runoff Depth (Q), in	11.83		00	
Runoff Volume, acre-ft	7.90		9	
Volume Differential, acre-ft	.5			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Atlantic Blvd. to Sample Road

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-14
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 2A					
Pre-Development Condition					
Description	Area (A)	Soil Group	rve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	1.05 ac	A	39	40.95	Open Spaces, Lawns/Good Condition
Pervious Area	2.45 ac	B	61	149.45	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	0.00 ac		100	0.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**3.50 ac**			190.40	**54.4 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	rve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	3.50 ac		100	350.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**3.50 ac**			350.00	**100.0 = Weighted CN**

Pond Alt. 2A	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	3.50	CN	3.50	CN
Pond Area, ac	0.00	100	3.50	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	3.50	54	0.00	39
CN	54.4		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	8.38		0.00	
Runoff Depth (Q), in	7.33		14.00	
Runoff Volume, acre-ft	2.14		4.08	
Volume Differential, acre-ft	1.94			

RS&H

Project Name: FTE Widening fron FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Wet Pond Attenuation
Atlantic Blvd. to Sample Road

Prepared by: RMG
Checked by:
Date: 5/23/2023

Basin C-14
Attenuation needed for Wet Pond

Curve Number Calculations - Pond Alternative 2C					
Pre-Development Condition					
Description	Area (A)	Soil Group	rve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	2.51 ac	A	39	97.89	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	5.80 ac		100	580.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**8.31 ac**			677.89	**81.6 = Weighted CN**

Post Development Condition					
Description	Area (A)	Soil Group	rve No. (C	CN x A	Cover type & hydrologic cond.
Pervious Area	0.00 ac	A	39	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	B	61	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	C	74	0.00	Open Spaces, Lawns/Good Condition
Pervious Area	0.00 ac	D	80	0.00	Open Spaces, Lawns/Good Condition
Impervious Area	0.00 ac		98	0.00	Roadway Pavement
Wetted Pond Area	8.31 ac		100	831.00	Pond
Dry Pond Area	0.00 ac	D	80	0.00	Pond
Total Area	**8.31 ac**			831.00	**100.0 = Weighted CN**

Pond Alt. 2C	**Attenuation**			
	Pre-Development Condition		***Post Development Condition***	
Total Area, acre	8.31	CN	8.31	CN
Pond Area, ac	5.80	100	8.31	100
Impervious Area, ac	0.00	98	0.00	98
Pervious Area, ac	2.51	39	0.00	39
CN	81.6		100.0	
Attenuation Volume-25yr24hr				
Precipitation	14.00		14.00	
Potential Maximum Retention (S)	2.26		0.00	
Runoff Depth (Q), in	11.61		14.00	
Runoff Volume, acre-ft	8.04		9.70	
Volume Differential, acre-ft	1.66			

Hillsboro Basin

Sample Road to Wiles Road

Proposed Attenuation

Supporting Calculations

Hillsboro Basin

Sample Road to Wiles Road

Stormwater Scenario Sizing Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd | **Prepared by:** RMG
Project Number: 44221212201 | **Checked by:**
Task Description: Estimation of ROW Requirements (Sample Road to Wiles Road) | **Date:** 5/25/2023
Stormwater Scenario No. 1 Stormwater Pond Sizing

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
Sample Road to Wiles Road	8.98	3.45	12.43	29.24
Total	8.98	3.45	12.43	29.24

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
Sample Road to Wiles Road	2.59	1.94	6.09	4.57	4.02
Total	2.59	1.94	6.09	4.57	4.02

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 1 (Dry Detention)
Sub-Basin Location: Sample Road to Wiles Road

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
10.5	2.70	0	0	
11.25	2.85	2.1	2.1	Treatment stage
12	3.00	2.2	4.3	Peak Stage
13	3.25	3.1	7.4	TOB

3.45 (ac.) Total pond area shown on drainage maps includeds 15 foot be... a... tie-downs.

Attenuation Check	
Peak Stage Vol. =	7.4 ac.ft.
...atment Vol. =	2.1 ac.ft.
Delta Vol. =	5.3 ac.ft.
Att. Vol. Req. =	4.0 ac.ft.
...Wet Pond Att. =	0.0 ac.ft.
...l Att. =	4.0 ac.ft.
Good - Delta Vol > Tot. Att.	

Treatment Volume Provided (ac.ft.) = 2.08
Total Pavement Treated (ac.) = 13.3

Note: ...wet pond attenuation required since no chang... existing land use.

Treatment Check			
...-Basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
Sample to ...Wiles	29.24	13.3	12.43
	29.24	13.3	12.4
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint... storage vo...mes are co...rvative and pond layout was developed using Microstation and existing ground contours.

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd | **Prepared by:** RMG
Project Number: 44221212201 | **Checked by:**
Task Description: Estimation of ROW Requirements (Sample Road to Wiles Road) | **Date:** 5/25/2023
Stormwater Scenario No. 2 Stormwater Pond Sizing

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
Sample Road to Wiles Road	8.98	3.45	12.43	29.24
Total	8.98	3.45	12.43	29.24

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
Sample Road to Wiles Road	2.59	1.94	6.09	4.57	4.02
Total	2.59	1.94	6.09	4.57	4.02

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 2 (Dry Detention)
Sub-Basin Location: Sample Road to Wiles Road

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
10.5	3.89	0	0	
11	3.97	2.0	2.0	Treatment stage
12	4.13	4.1	6.0	Peak Stage
12.5	4.21	2.1	8.1	TOB
13.5	4.84	NA	NA	

4.84 (ac.) Total pond area shown on drainage maps includeds 15 f[illegible]t berms and tie-downs.

Attenuation Check	
[illegible]k Stage Vol. =	6.0 ac.ft.
[illegible]reatment Vol. =	2.0 ac.ft.
Delta Vol. =	4.1 ac.ft.
[illegible]tt. Vol. Req. =	4.0 ac.ft.
[illegible] Pond Att. =	0.0 ac.ft.
To[illegible]tt. =	4.0 ac.ft.
Good - Delta Vol > Tot. Att.	

Note: No [illegible] pond attenuation required since no change in existing land use.

Treatment Volume Provided (ac.ft.) = 1.97
Total Pavement Treated (ac.) = 12.6

Treatment Check			
Sub-[illegible]sins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
Sample to Wiles	29.24	12.6	12.43
Total	29.24	12.6	12.4
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond fo[illegible]int. Storage v[illegible]mes are conse[illegible]ative and pond layout was developed using Microstation and existing ground contours.

Project Name: FTE Widening from South of I-595 to Wiles Rd | **Prepared by:** RMG
Project Number: 44221212201 | **Checked by:**
Task Description: Estimation of ROW Requirements (Sample Road to Wiles Road) | **Date:** 5/25/2023
Stormwater Scenario No. 3 Stormwater Pond Sizing

Sub-basin	Required Treated Imp. (ac)			Available Imp. (ac.)
	New Imp.	Exist. Treated Imp.	Total	
Sample Road to Wiles Road	8.98	3.45	12.43	29.24
Total	8.98	3.45	12.43	29.24

Sub-basin	Required Treatment (ac.ft.)		Available Treatment (ac.ft.)		Attenuation (ac.ft.)
	Wet Det.	Dry Det.	Wet Det.	Dry Det.	
Sample Road to Wiles Road	2.59	1.94	6.09	4.57	4.02
Total	2.59	1.94	6.09	4.57	4.02

Notes:
1. See supporting attenuation spreadsheets for approach explanation and total of existing and proposed attenuation required.
2. Treatment volumes are based on 2.5 inches of runoff from the total required treatment area for wet detention and 1.875 inches for dry detention.

Pond Alternative 3 (Dry Detention)
Sub-Basin Location: Sample Road to Wiles Road

Stage (Elev)	Area (ac)	Inc. Volume (ac.ft.)	Total Volume (ac.ft.)	
10.5	4.11	0	0	
11	4.19	2.1	2.1	Treatment stage
12	4.35	4.3	6.3	Peak Stage
13	4.50	4.4	10.8	
14	5.11	NA	NA	TOB

5.11 (ac.) Total pond area shown on drainage maps includeds 15 foot berms and tie-downs.

Attenuation Check	
Peak Stage Vol. =	6.3 ac.ft.
Treatment Vol. =	2.1 ac.ft.
Delta Vol. =	4.3 ac.ft.
Att. Vol. Req. =	4.0 ac.ft.
Wet Pond Att. =	0.0 ac.ft.
Tot Att. =	4.0 ac.ft.
Good - Delta Vol > Tot. Att.	

Note: No wet pond attenuation required since no change in existing land use.

Treatment Volume Provided (ac.ft.) = 2.08
Total Pavement Treated (ac.) = 13.3

Treatment Check			
Sub-basins	Available Impervious (acres)	Treated Impervious (acres)	Required Treated Imp. (acres)
Sample Road to Wiles	29.24	13.3	12.43
Total	29.24	13.3	12.4
Good - Treated Imp. > Req. Treated Imp.			

Note: Analysis does not include a calculated contingency for pond footprint. Storage volumes are conservative and pond layout was developed using Microstation and existing ground contours.

Hillsboro Basin

Sample Road to Wiles Road

Proposed Required Attenuation Supporting Calculations

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Proposed Attenuation Volume
Sample Road to Wiles Road

Prepared by: JAB
Checked by: RMG
Date: 12/9/2022

Hillsboro Canal Basin	Required Attenuation Volumes			
	Pre-Development Condition		*Post Development Condition*	
Total Area, acre	54.99	CN	54.99	CN
Pond Area, ac	0.00	100	0.00	100
Impervious Area, ac	20.26	98	29.24	98
Pervious Area, ac	34.73	49	25.75	45
CN	67.3		73.0	
Attenuation Volume-25yr72hr				
Precipitation	14.00		14.0	
Potential Maximum Retention (S)	4.87		.71	
Runoff Depth (Q), in	9.48		10.36	
Runoff Volume, acre-ft	43.46		47.48	
Volume Differential, acre-ft	**4.02**			

Appendix C: Floodplain Encroachment Calculations

Floodplain Compensation Calculations

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
FPID: 44221212201
County: Broward
Designer: JAB
Checked by: RMG
Date: 5/6/2023

Basin	Sub-Basin	Station Limits	Basin Outfall	Flooplain Elevation (NAVD)	Net Fill in Floodplain (ac.ft.)	Total (ac.ft.)
1	I-595 Interchange (south)	1318+00 to 1336+00	C-11_N-4	6.00	3.6	3.6
2	I-595 to Peters Rd.	1336+00 to 1394+00	NNR Canal	6.00	1.2	2.4
3	Peters Rd. to Sunrise Blvd.	1394+00 to 1505+00	C-12 Canal	7.00	17.9	17.9
	Sunrise Blvd. to Oakland Park Blvd.	1505+00 to 1606+50	C-12 Canal	7.00 8.00	3.0 25.9	28.9
4	Oakland Park Blvd. to C-13 Canal	1606+50 to 1636+00	C-13 Canal	8.00 9.00	4.0 15.6	19.6
	C-13 Canal to Commercial Blvd.	1636+00 to 1714+00	C-13 Canal	7.00 8.00 9.00	2.1 20.5 0.7	23.3
	Commercial Blvd. to SR-7	1714+00 to 1753+00	C-13 Canal	8.00 9.00 11.00	0.4 7.8 1.0	9.2
5	SR-7 to Cypress Creek Rd.	1753+00 to 1770+00	C-14 Canal	[illegible]	5.7	5.7
	Cypress Creek Rd. to Lyons Rd.	1770+00 to 1838+00	C-14 Canal	[illegible] 9.00 10.00 12.00	2.2 1.2 2.3 0.7	6.4
	Lyons Rd. to C-14 Canal	1838+00 to 1891+00	C-14 Canal	10.00 [illegible]1.00	2.9 2.1	5.0
6	C-14 Canal to Coconut Creek Pkwy.	1891+00 to 1955+00	C-14 Canal	11.00	21.8	21.8
	Coconut Creek Pkwy. To Copans Rd.	1955+00 to 2009+00	[illegible] Canal	11.00 12.00 13.00 14.00	0.9 0.7 2.4 8.8	12.8
	Copans Rd. to Sample Rd.	2009+00 to 2061+00	14[illegible]nal	12.00 13.00	11.3 0.9	12.2
7	Sample Rd. to Wiles Rd.	206[illegible]0 to 2112+0[illegible]	C-1[illegible]anal	13.00 14.00	3.5 13.7	17.2

C-11/N-4 Basin

Begin Project to I-595

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of ROW Requirements	**Date:**	6/5/2023

Basin C-11/N-4
FPC-1 Sizing Calculation
Flood Elevation - 6.0 NAVD88

Existing Ground at Pond site =	5.00	NAVD88	(Estimated From GIS Topographic Information)
Elev SHW =	1.40	NAVD88	(Based on control elevation of N-4 Canal)
Floodplain Comp Volume Required	3.60	AC-FT.	Refer to Floodplain Summary Table
Pond Area Based on floodplain volume	1.00	AC	
Storage Depth	3.60	FT.	
Elev SHW=	1.40	NAVD88	
Top of Berm Elevation given a total depth =	5.00	NAVD88	
Unit Length Based on L/W = 2	295	FT.	
Unit Width Based on L/W = 2	148	FT.	
Maintenance Berm Width of 15-ft	30	FT.	
Grade Adjustment Width Assumed 1:2	0	FT.	
Horizontal Distance Based on a 1:4 Slope and total Depth	29	FT.	
Total Pond Length (including maintenance berm and adjustments)	354	FT.	
Total Pond Width (including maintenance berm and adjustments)	206	FT.	
Preliminary Property Size Required	1.68	A	
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	1.[illegible]	AC.	

Note: Encroachment volume calculated from floodplain elevation down to existing ground or canal control elevation whichever is higher.

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of ROW Requirements	**Date:**	6/5/2023

Basin C-11/N-4
FPC-2 Sizing Calculation
Flood Elevation - 6.0 NAVD88

Existing Ground at Pond site =	6.00	NAVD88	(Estimated From GIS Topographic Information)
Elev SHW =	1.40	NAVD88	(Based on control elevation of N-4 Canal)
Floodplain Comp Volume Required	3.60	AC-FT.	Refer to Floodplain Summary Table
Pond Area Based on floodplain volume	0.78	AC	
Storage Depth	4.60	FT.	
Elev SHW=	1.40	NAVD88	
Top of Berm Elevation given a total depth =	6.00	NAVD88	
Unit Length Based on L/W = 2	261	FT.	
Unit Width Based on L/W = 2	131	FT.	
Maintenance Berm Width of 15-ft	30	FT.	
Grade Adjustment Width Assumed 1:2	0	FT.	
Horizontal Distance Based on a 1:4 Slope and total Depth	37	FT.	
Total Pond Length (including maintenance berm and adjustments)	328	FT.	
Total Pond Width (including maintenance berm and adjustments)	197	FT.	
Preliminary Property Size Required	1.49	A	
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	1.[illegible]	AC.	

Note: Encroachment volume calculated from floodplain elevation down to existing ground or canal control elevation whichever is higher.

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

I-595 Interchange (South)

Floodplain elevation **6.00** **Zone AE**

Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1318+00	6.0	0.00	0.0
1320+00	6.0	10.00	500.0
1322+00	6.0	152.00	16700.0
1325+00	6.0	245.00	76250.0
1326+00	6.0	245.00	100750.0
1327+00	6.0	94.50	117725.0
1328+00	6.0	46.50	124775.0
1330+00	6.0	76.50	137075.0
1333+00	6.0	0.00	148550.0
1334+00	6.0	17.50	149425.0
1335+00	6.0	48.00	152700
1336+00	6.0	0.00	155100

Total Fill 15 0.0 cubic eet

Net Fill in Floodplain **155100.0 cubic feet**
5744.4 cubic yards
3.6 acre-feet

NNR Basin

I-595 to Peters Road

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of ROW Requirements	**Date:**	6/5/2023

Basin North New River (NNR)
FPC-1 Sizing Calculation
Flood Elevation - 6.0 NAVD88

Existing Ground at Pond site =	5.00	NAVD88	(Estimated From GIS Topographic Information)
Elev SHW =	2.50	NAVD88	(Estimated water surface elevation NNR Canal 1.4)
Floodplain Comp Volume Required	2.40	AC-FT.	Refer to Floodplain Summary Table
Pond Area Based on floodplain volume	0.96	AC	
Storage Depth	2.50	FT.	
Elev Bottom of Storage Area =	2.50	NAVD88	
Top of Berm Elevation given a total depth =	5.00	NAVD88	
Unit Length Based on L/W = 2	289	FT.	
Unit Width Based on L/W = 2	145	FT.	
Maintenance Berm Width of 15-ft	30	FT.	
Grade Adjustment Width Assumed 1:2	0	FT.	
Horizontal Distance Based on a 1:4 Slope and total Depth	20	FT.	
Total Pond Length (including maintenance berm and adjustments)	339	FT.	
Total Pond Width (including maintenance berm and adjustments)	195	FT.	
Preliminary Property Size Required	1.52	A	
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	1.[illegible]	AC.	**FP[illegible]hape slightly larger on drainage map**

Note: Encroachment volume calculated from floodplain elevation down to existing ground or canal control elevation whichever is higher.

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of ROW Requirements	**Date:**	6/5/2023

Basin North New River (NNR)
FPC-2 Sizing Calculations
Flood Elevation - 6.0 NAVD88

Existing Ground at Pond site =	6.00	NAVD88	(Estimated From GIS Topographic Information)
Bottom Elev =	2.80	NAVD88	(Estimated water surface elevation of ski lake 2.8)
Floodplain Comp Volume Required	2.40	AC-FT.	Refer to Floodplain Summary Table
Pond Area Based on floodplain volume	0.75	AC	
Storage Depth	3.20	FT.	
Elev SHW=	2.80	NAVD88	
Top of Berm Elevation given a total depth =	6.00	NAVD88	
Unit Length Based on L/W = 2	256	FT.	
Unit Width Based on L/W = 2	128	FT.	
Maintenance Berm Width of 15-ft	15	FT.	
Grade Adjustment Width Assumed 1:2	0	FT.	
Horizontal Distance Based on a 1:4 Slope and total Depth	26	FT.	
Total Pond Length (including maintenance berm and adjustments)	296	FT.	
Total Pond Width (including maintenance berm and adjustments)	168	FT.	
Preliminary Property Size Required	1.15	A	
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	1.[illegible]	AC.	**FP[illegible]hape slightly larger on drainage map**

Note: Encroachment volume calculated from floodplain elevation down to existing ground or canal control elevation whichever is higher.

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

I-595 Interchange (North)

Floodplain elevation **6.00** **Zone AE**

Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1344+00	6.0	0.00	0.0
1345+00	6.0	87.00	4350.0
1350+00	6.0	50.00	38600.0
1355+00	6.0	0.00	51100.0

Total Fill 51100.0 cubic fe

Net Fill in Floodplain

51100.0 bic feet

1892.6 cub vards

1.2 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

I-595 to Peters Rd ML

Floodplain elevation **6.00** **Zone AE**

Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1354+00	6.0	0.00	0.0
1355+00	6.0	14.00	700.0
1360+00	6.0	7.00	5950.0
1365+00	6.0	0.00	7700.0
1370+00	6.0	0.00	7700.0
1375+00	6.0	9.00	9950.0
1380+00	6.0	52.00	25200.0
1385+00	6.0	14.00	41700.0
1390+00	6.0	20.00	50200.0
1391+00	6.0	0.00	51200.0

Total Fill 51200.0 cubic feet

Net Fill in Floodplain **51200.0 cubic feet**

1.2 acre-feet

C-12 Basin

Peters Road to Oakland Park Blvd.

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of ROW Requirements	**Date:**	6/5/2023

Basin C-12
FPC-1A-1/1A-2 (OPWCD Canal System)
Floodplain Elevation - 7.0 NAVD88

Existing Ground at Pond site =	6.00	NAVD 88 (Estimated From GIS Topographic Information)
Bottom Elev =	2.20	NAVD 88 (OPWCD Canal control elevation of 1.96 per FPID 406094-1)
Floodplain Comp Volume Required	17.90	AC-FT.
Pond Area Based on floodplain volume	4.71	AC
Storage Depth	3.80	FT.
Total Depth from SHWL to Top of Berm	**3.80**	**FT.**
Elev SHW=	2.20	NAVD 88
Top of Berm Elevation given a total depth =	6.00	NAVD 88
Unit Length Based on L/W = 2	641	FT.
Unit Width Based on L/W = 2	320	FT.
Maintenance Berm Width of 15-ft	30	FT.
Grade Adjustment Width Assumed 1:2	0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth	30	FT.
Total Pond Length (including maintenance berm and adjustments)	701	FT.
Total Pond Width (including maintenance berm and adjustments)	381	FT.
Preliminary Property Size Required	6.1	AC.
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	.13	AC.

Note: Encroachment volume calculated from floodplain elevation down to existing ground or ca[illegible] control elev[illegible]on whichever is higher.

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of ROW Requirements	**Date:**	6/5/2023

Basin C-12
FPC-1B-1/1B-2 (C-12 Canal System)
Floodplain Elevations Vary Between Between 7.0 and 8.0 NAVD88

Existing Ground at Pond site =	6.00	NAVD 88	(Estimated From GIS Topographic Information)
Bottom Elev =	2.30	NAVD 88	(C-12 Control Elevation 1.93 taken from FPID 406094-1)
Floodplain Comp Volume Required	28.90	AC-FT.	
Pond Area Based on floodplain volume	7.81	AC	
Storage Depth	3.70	FT.	
Total Depth from SHWL to Top of Berm	**3.70**	**FT.**	
Elev SHW=	2.30	NAVD	
Top of Berm Elevation given a total depth =	6.00	NAVD	
Unit Length Based on L/W = 2	825	FT.	
Unit Width Based on L/W = 2	412	FT.	
Maintenance Berm Width of 15-ft	30	FT.	
Grade Adjustment Width Assumed 1:2	0	FT.	
Horizontal Distance Based on a 1:4 Slope and total Depth	30	FT.	
Total Pond Length (including maintenance berm and adjustments)	885	FT.	
Total Pond Width (including maintenance berm and adjustments)	472	FT.	
Preliminary Property Size Required	9.59	AC.	
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	.59	AC.	

Note: Encroachment volume calculated from floodplain elevation down to existing ground or ca[illegible] control elevation whichever is higher.

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Peters Rd to W Broward Blvd ML

Floodplain elevation **7.00** **Zone AE**

Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1394+00	7.0	0.00	0.0
1395+00	7.0	10.00	500.0
1397+00	7.0	1.00	1600.0
1400+00	7.0	4.00	2350.0
1405+00	7.0	26.00	9850.0
1410+00	7.0	46.00	27850.0
1415+00	7.0	71.00	57100.0
1420+00	7.0	84.00	95850.0
1425+00	7.0	67.00	133600.0
1430+00	7.0	1.00	150600.0
1435+00	7.0	0.00	150850.0

Floodplain elevation **7.00** **Zone AE**

Southbound ML

Sta.	FEMA EL.	Cut s.f.	Cumulative Cut c.f.
1412+50	7.0	0.00	0.0
1415+00	7.0	58.00	7250.0
1420+00	7.0	93.50	45125.0
1425+00	7.0	83.00	89250.0
1428+50	7.0	0.00	103775.0

Floodplain elevation **7.00** **Zone AE**

Northbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1395+00	7.0	0.00	0.0
1397+00	7.0	17.00	1700.0
1400+00	7.0	16.00	665
1405+00	7.0	13.00	1 00.0
1410+00	7.0	2.00	50.0
1415+00	7.0	38.00	27
1416+00	7.0	0.00	29550.

Floodplain elevation **7.00** **Zone AE**

Northbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1427+00	7.0	42.	0.0
1430+00	7.0	0.00	3400.0
1435+00	7.0	8.00	10400.0
1437+00	7.0	14.00	12600.0
1438+00	7.0	108.00	18700.0
1439+00	7.0	113.00	29750.0
1440+00	7.0	103.00	40550.0
1441+00	7.0	19.00	46650.0
1443+00	7.0	31.00	51650.0
1444+00	7.0	0.00	53200.0

Floodplain elevation **7.00** **Zone AE**

Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1443+00	7.0	0.00	0.0
1445+00	7.0	9.00	900.0
1448+00	7.0	0.00	2250.0

Total Fill 235850.0 cubic feet

Total Cut 103775.0 cubic feet

Net Fill in Floodplain **132075.0 cubic feet**

4891.7 cubic yards

3.0 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

W Broward Blvd ML to Sunrise Blvd

Floodplain elevation **7.00** **Zone AE**

Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1448+00	7.0	0.0	0.0
1450+00	7.0	34.5	3450.0
1455+00	7.0	198.5	61700.0
1460+00	7.0	378.5	205950.0
1465+00	7.0	430.0	408075.0
1470+00	7.0	431.5	623450.0
1475+00	7.0	346.0	817825.0
1480+00	7.0	341.5	989700.0
1485+00	7.0	116.5	1104200.0
1489+00	7.0	0.0	1127500.0

Floodplain elevation **7.00** **[illegible]e AE**

Northbound ML

Sta.	FEMA EL.	Cut s.f.	[illegible]umul[illegible] Cut c[illegible]
1448+00	7.0	0.0[illegible]	[illegible]0
1450+00	7.0	107.5	10[illegible].0
1455+00	7.0	12[illegible]	[illegible]625.0
1460+00	7.0	[illegible]49.00	138875.0
1465+[illegible]	[illegible]	[illegible].00	238625.0
147[illegible]00	7.0	250.[illegible]0	363625.0
14[illegible]00	7.0	191.00	473875.0
1480+[illegible]	7.0	110.00	549125.0
1485+00	7.0	97.00	600875.0
1481+00	[illegible].0	0.00	581475.0

Sub-Total Fill	1127500.0	cubic feet
Sub- Total Cut	581475.0	cubic feet
Sub-Total Berm Fill**	104544.0	cubic feet
Net Fill in Floodplain	**650569.0**	**cubic feet**
	24095.1	**cubic yards**
	14.9	**acre-feet**

**This fill approximates the fill that will be required for the outside pond berm associated with preferred alternative 1A in the C-12 Basin between Broward and Sunrise.

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Sunrise Blvd to Oakland Park Blvd ML

Floodplain elevation **8.00** **Zone AH**

Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1538+00	8.0	0.00	0.0
1538+50	8.0	101.00	2525.0
1540+00	8.0	97.00	17375.0
1541+00	8.0	83.00	26375.0
1542+00	8.0	0.00	30525.0

Floodplain elevation **7.00** **Zone AH**

Northbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1523+00	7.0	0.00	0.0
1524+00	7.0	41.00	2050.0
1525+00	7.0	30.00	600.0
1526+00	7.0	30.00	860
1527+00	7.0	28.00	1500
1530+00	7.0		0.0
1535+00	7.0	35.0	50.0
1538+00	7.0	67.0	0.0
1540+00	7.0	55	550.0
1541+00	7.0	1.00	69850.0
1545+	7.	00	100050.0
155	7.0	33.	128300.0
15	7.0	0.00	130775.0

Floodplain elevation **7.00** **Zone AH**

Northbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1550+00	8.0	0.00	0.0
1551+00	8.0	133.00	6650.0
1553+00	8.0	129.00	19750.0
1555+00	8.0	31.00	27750.0
1556+00	8.0	84.00	33500.0
1557+00	8.0	84.00	41900.0
1558+00	8.0	0.00	46100.0

Floodplain elevation **8.00** **Zone AE**

Northbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1556+00	8.0	0.00	0.0
1556+00	8.0	84.00	4200.0
1557+00	8.0	118.00	14300.0
1560+00	8.0	116.00	49400.0
1565+00	8.0	115.00	107150.0
1570+00	8.0	113.00	164150.0
1575+00	8.0	114.00	220900.0
1580+00	8.0	94.00	272900.0
1585+00	8.0	65.00	312650.0
1590+00	8.0	48.00	340900.0
1595+00	8.0	77.00	372150.0
1600+00	8.0	115.00	420150.0
1604+00	8.0	117.00	466550.0
1606+00	8.0	6.00	478850.0

Floodplain elevation **8.00** **Zone AE**

Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1559+00	8.0	0.00	0.0
1560+00	8.0	57.00	28[illegible]
1562+00	8.0	116.00	[illegible]0150
1565+00	8.0	[illegible]	[illegible]0.0
1570+00	8.0	101.[illegible]	10[illegible]00.0
1575+00	8.0	102.0	158[illegible]0.0
1580+00	8.0	[illegible]	[illegible]1850.0
1585+00	8.0	[illegible]5.00	273600.0
1590+[illegible]	[illegible]	[illegible].00	349350.0
159[illegible]+00	8.0	123.[illegible]0	422100.0
16[illegible]+00	8.0	140.00	487850.0
1604+[illegible]	8.0	136.00	543050.0
1606+50	8.0	80.00	570050.0
1607+00	[illegible].0	0.00	572050.0

Total Fill 1258300.0 cubic feet

Net Fill in Floodplain

1258300.0 cubic feet
46603.7 cubic yards
28.9 acre-feet

C-13 Basin

Oakland Park Blvd. to SR 7

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FEMA ROW Requirements	**Date:**	6/5/2023

Basin C-13
FPC-1 (Inverrary Golf Course)
Floodplain Elevations Vary
Between 7.0 and 11.0 NAVD 88

Existing Ground at Pond site =	7.00	NAVD 88 (Estimated From GIS Topographic Information)
Bottom Elev =	3.40	NAVD 88 (Control Elev. 2.93 taken from FPID 406094-1)

Floodplain Comp Volume Required	52.10	AC-FT.
Pond Area Based on floodplain volume	14.47	AC
Storage Depth	3.60	FT.
Total Depth from SHWL to Top of Berm	**3.60**	**FT.**
Elev SHW=	3.40	NAVD
Top of Berm Elevation given a total depth =	7.00	NAVD
Unit Length Based on L/W = 2	1123	FT.
Unit Width Based on L/W = 2	561	FT.
Maintenance Berm Width of 15-ft	30	FT.
Grade Adjustment Width Assumed 1:2	0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth	29	FT.
Total Pond Length (including maintenance berm and adjustments)	1182	FT.
Total Pond Width (including maintenance berm and adjustments)	620	FT.
Preliminary Property Size Required	16.8	AC.
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	.83	AC.

Note: Encroachment volume calculated from floodplain elevation down to existing ground or ca control elev on whichever is higher.

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FEMA ROW Requirements	**Date:**	6/5/2023

Basin C-13
FPC-2A (Inverrary Golf Course)
Floodplain Elevations Vary
Between 7.0 and 11.0 NAVD 88

Existing Ground at Pond site =	7.00	NAVD 88	(Estimated From GIS Topographic Information)
Bottom Elev =	3.50	NAVD 88	(Control Elev. 2.93 taken from FPID 406094-1)
Floodplain Comp Volume Required	42.90	AC-FT.	
Pond Area Based on floodplain volume	12.26	AC	
Storage Depth	3.50	FT.	
Total Depth from SHWL to Top of Berm	**3.50**	**FT.**	
Elev SHW=	3.50	NAVD	
Top of Berm Elevation given a total depth =	7.00	NAVD	
Unit Length Based on L/W = 2	1033	FT.	
Unit Width Based on L/W = 2	517	FT.	
Maintenance Berm Width of 15-ft	30	FT.	
Grade Adjustment Width Assumed 1:2	0	FT.	
Horizontal Distance Based on a 1:4 Slope and total Depth	28	FT.	
Total Pond Length (including maintenance berm and adjustments)	1091	FT.	
Total Pond Width (including maintenance berm and adjustments)	575	FT.	
Preliminary Property Size Required	14.4	AC.	
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	.40	AC.	

Note: Encroachment volume calculated from floodplain elevation down to existing ground or ca control elev on whichever is higher.

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FEMA ROW Requirements	**Date:**	6/5/2023

Basin C-13
FPC-2B (Adjacent to Commercial Blvd. Interchange)
Floodplain Elevations Vary
Between 7.0 and 11.0 NAVD 88

Existing Ground at Pond site =	7.00	NAVD 88 (Estimated From GIS Topographic Information)
Bottom Elev =	4.00	NAVD 88 (Control Elev. 2.93 taken from FPID 406094-1)
Floodplain Comp Volume Required	9.20	AC-FT.
Pond Area Based on floodplain volume	3.07	AC
Storage Depth	3.00	FT.
Total Depth from SHWL to Top of Berm	**3.00**	**FT.**
Elev SHW=	4.00	NAVD
Top of Berm Elevation given a total depth =	7.00	NAVD
Unit Length Based on L/W = 2	517	FT.
Unit Width Based on L/W = 2	258	FT.
Maintenance Berm Width of 15-ft	30	FT.
Grade Adjustment Width Assumed 1:2	0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth	24	FT.
Total Pond Length (including maintenance berm and adjustments)	571	FT.
Total Pond Width (including maintenance berm and adjustments)	312	FT.
Preliminary Property Size Required	4.0[illegible]	AC.
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	[illegible].09	AC.

Note: Encroachment volume calculated from floodplain elevation down to existing ground or ca[illegible] control elev[illegible]on whichever is higher.

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Oakland Park Interchange

Floodplain elevation **8.00** **Zone AE**

NW 52nd Ave

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1609+00	8.0	0.00	0.0
1610+00	8.0	74.00	3700.0
1612+00	8.0	0.00	11100.0

Floodplain elevation **9.00** **Zone AH**

Rock Island Rd & On/off-ramps

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1613+00	9.0	0.00	0.0
1616+00	9.0	352.50	52875.0
1618+00	9.0	348.50	122975.0
1620+00	9.0	639.00	221725.0
1622+00	9.0	665.50	352175.0
1624+00	9.0	431.00	461825.0
1626+00	9.0	157.00	520625.0
1628+00	9.0	584.50	594775.0
1630+00	9.0	0.00	653225.0

Floodplain elevation **9.00** **Zone AH**

Ramp Overpass

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1622+00	9.0	0.00	0.0
1624+00	9.0	17[illegible]	170[illegible]
1625+00	9.0	0.00	[illegible]00.0

Total Fill [illegible]25.0 cubic feet

Net Fill in Floodp[illegible]

689825.0 cubic feet
25549.1 cubic yards
15.8 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Oakland Park Blvd to C13 Canal

Floodplain elevation **8.00** **Zone AE**

Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1608+50	8.0	0.00	0.0
1610+00	8.0	223.00	16725.0
1612+00	8.0	281.00	67125.0
1614+00	8.0	334.00	128625.0
1615+50	8.0	0.00	153675.0

Floodplain elevation **8.00** **Zone AE**

Northbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1611+00	8.0	4.00	200.0
1612+00	8.0	15.00	1150.0
1614+00	8.0	54.00	4600.0
1616+00	8.0	0.00	7300.0
1618+00	8.0	0.00	7300.0
1620+00	8.0	0.00	7300.0
1622+00	8.0	0.00	7300.0
1624+00	8.0	0.00	7300.0
1625+00	8.0	0.00	7300.0

Total Fill 160975.0 cubic feet

Net Fill in Floodplain **160975.0 cubic feet**
5962.0 cubic yards
3.7 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

C13 Canal to Commercial Blvd ML

Floodplain elevation **8.00** **Zone AE**

Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1637+00	8.0	0.00	0.0
1638+00	8.0	193.80	9690.0
1642+00	8.0	189.00	86250.0
1646+00	8.0	152.00	154450.0
1650+00	8.0	106.00	206050.0
1654+00	8.0	11.00	229450.0
1658+00	8.0	169.00	265450.0
1662+00	8.0	124.00	324050.0
1666+00	8.0	136.00	376050.0
1670+00	8.0	106.00	424450.0
1674+00	8.0	159.00	477450.0
1678+00	8.0	152.00	539650
1682+00	8.0	138.00	597650.0
1686+00	8.0	96.00	644450.0
1690+00	8.0	55.00	[illegible]
1694+00	8.0	98.00	[illegible]
1698+00	8.0	154.00	[illegible]
1702+00	8.0	[illegible]	[illegible]
1706+00	8.0	27.00	[illegible]
1710+00	8.0	0.00	[illegible]

Floodplain elevation **7.00** **Zone AH**

Northbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1625+00	7.0	0.00	0.0
1626+00	7.0	2.00	100.0
1628+00	7.0	4.00	700.0
1630+00	7.0	5.00	1600.0
1632+00	7.0	3.00	2400.0
1634+00	7.0	6.00	3300.0
1636+00	7.0	24.00	6300.0
1638+00	7.0	15.00	10200.0
1642+00	7.0	51.00	23400.0
1646+00	7.0	24.00	38400.0
1650+00	7.0	22.00	47600.0
1654+00	7.0	19.00	55800.0
1658+00	7.0	7.00	61000.0
1662+00	7.0	16.00	65600.0
1666+00	7.0	5.00	69800.0
1670+00	7.0	3.00	71400.0
1674+00	7.0	18.00	75600.0
1678+00	7.0	24.00	84000.0
1682+00	7.0	10.00	90800
1683+00	7.0	12.00	91900.0

Floodplain elevation **8.00**

Northbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1683+00	8.0	0.00	0.0
1686+00	8.0	4.00	2100.0
1690+00	8.0	10.00	6900.0
1694+00	8.0	67.00	22300.0
1695+00	8.0	88.00	30050.0

Zone AH

Floodplain elevation **9.00**

Northbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1695+00	9.0	88.00	4400.0
1698+00	9.0	70.00	28100.0
1699+00	9.0	0.00	31600.0

Zone AH

Total Fill 1014800.0

Net Fill in Floodplain cubic feet

1014800.0 cubic feet
37585.2 cubic yards
23.3 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	5/6/2023

Mainline from Commercial Blvd to SR 7

Floodplain elevation **11.00** **Zone AE**

SR 91 SB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1714+50	11.0	0.00	0.0
1715+00	11.0	70.00	1750.0
1717+50	11.0	157.00	30125.0
1718+00	11.0	125.00	37175.0
1719+00	11.0	0.00	43425.0

Floodplain elevation **9.00** **Zone AE**

SR 91 SB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1727+00	9.0	0.00	0.0
1728+00	9.0	52.00	2600.0
1730+00	9.0	71.00	14900.0
1732+00	9.0	0.00	22000.0

Total Fill 65425.0 cubic feet

Net Fill in Floodplain

65425.0 cubic fee
2423.1 cubic
1.5 acre-fee

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Commercial Blvd Interchange

Floodplain elevation **9.00** **Zone AE**

Southbound SR 91 On-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1720+00	9.0	0.00	0.0
1722+00	9.0	316.50	31650.0
1724+00	9.0	141.00	77400.0
1725+00	9.0	132.50	91075.0
1726+00	9.0	355.00	115450.0
1727+00	9.0	451.50	155775.0
1728+00	9.0	507.00	203700.0
1730+00	9.0	15.00	255900.0
1732+00	9.0	35.00	260900.0
1733+00	9.0	0.00	262650.0

Floodplain elevation **9.00** **Zone AH**

Southbound Off-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1733+00	9.0	0.00	0.0
1734+00	9.0	46.00	2300.0
1738+00	9.0	72.50	26000.0
1740+00	9.0	0.00	33250.0

Floodplain elevation **8.00** **Zone AE**

Northbound On-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1729+00	8.0	0.00	0.0
1730+00	8.0	1.50	75.0
1731+00	8.0		150.0

Floodplain elevation **8.00** **Zone AH**

Northbound On-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1730+00	8.0	0.00	0.0
1732+00	8.0	48.50	4850.0
1734+00	8.0	51.00	14800.0
1735+00	8.0	0.00	17350.0

Floodplain elevation **9.00** **Zone AH**

Northbound On-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1737+00	9.0	0.00	0.0
1738+00	9.0	6.50	325.0
1742+00	9.0	73.50	16325.0
1744+00	9.0	0.00	23675.0

Total Fill 337075.0 cubic feet

Net Fill in Floodplain

337075.0 cubic feet
12484.3 cubic yards
7.7 acre-feet

C-14 Basin (South)

SR 7 to C-14 Canal

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW Requirements C-14 Canal (SR 7 to Atlantic Blvd.)

FPC-1

Floodplain Elevations Vary Between 5.0 and 12.0 NAVD88

Existing Ground at Pond site =	10.00	NAVD 88	(Estimated From GIS Topographic Information)
Bottom Elev =	6.50	NAVD 88	(C-14 Control Elevation 5.43 taken from FPID 406097-1
Floodplain Comp Volume Required	17.70	AC-FT.	
Pond Area Based on floodplain volume	5.06	AC.	
Storage Depth	3.50	FT.	
Elev SHW=	6.50	NAVD	
Top of Berm Elevation given a total depth =	10.00	NAVD	
Unit Length Based on L/W = 2	664	FT.	
Unit Width Based on L/W = 2	332	FT.	
Maintenance Berm Width of 15-ft	30	FT.	
Grade Adjustment Width Assumed 1:2	0	FT.	
Horizontal Distance Based on a 1:4 Slope and total Depth	28	FT.	
Total Pond Length (including maintenance berm and adjustments)	722	FT.	
Total Pond Width (including maintenance berm and adjustments)	390	FT.	
Preliminary Property Size Required	6.46	A	
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION	6	AC.	

Note:

1. FPC Site significantly higher than lowest FEMA elevation. Minimum opportunities for sites m dictate need for liner to lower control elevation.
2. Encroachment volume calculated from floodplain elevation down to existing ground or canal c l el ation whichever is higher.

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW Requirements C-14 Canal (SR 7 to Atlantic Blvd.)

FPC-2

Floodplain Elevations Vary Between 5.0 and 12.0 NAVD88

	Existing Ground at Pond site =	10.00	NAVD (Estimated From GIS Topographic Information)
	Bottom Elev =	6.50	NAVD 88 (C-14 Control Elevation 5.43 taken from FPID 406097-1
Floodplain Comp Volume Required		17.10	AC-FT.
Pond Area Based on floodplain volume		4.89	AC.
Storage Depth		3.50	FT.
Elev SHW=		6.50	NAVD
Top of Berm Elevation given a total depth =		10.00	NAVD
Unit Length Based on L/W = 2		652	FT.
Unit Width Based on L/W = 2		326	FT.
Maintenance Berm Width of 15-ft		30	FT.
Grade Adjustment Width Assumed 1:2		0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth		28	FT.
Total Pond Length (including maintenance berm and adjustments)		710	FT.
Total Pond Width (including maintenance berm and adjustments)		384	FT.
Preliminary Property Size Required		6.27	A
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION		6	AC.

Note:

1. FPC Site significantly higher than lowest FEMA elevation. Minimum opportunities for sites m dictate need for liner to lower control elevation.
2. Encroachment volume calculated from floodplain elevation down to existing ground or canal c l el ation whichever is higher.

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	5/6/2023

SR 7 to Toll Plaza

Floodplain elevation **12.00** **Zone AE**

SR 91 SB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1770+00	12.0	0.00	0.0
1774+00	12.0	46.00	9200.0
1777+00	12.0	72.00	26900.0
1778+00	12.0	0.00	30500.0

Floodplain elevation **8.00** **Zone AE**

SR 91 NB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1770+00	8.0	0.00	0.0
1774+00	8.0	118.00	23600.0
1778+00	8.0	76.50	62500.0
1782+00	8.0	52.00	88200.0
1785+00	8.0	0.00	96000.0

Floodplain elevation **10.00** **Zone AH**

SR 91 SB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1778+00	10.0	47.00	2350.0
1782+00	10.0	19.00	15550.0
1786+00	10.0	30.00	25350.0
1787+00	10.0	0.00	26850.0

Total Fill 153350.0 cubic feet

Net Fill in Floodplain

153350.0 cubic feet
5679.6 cubic yards
3.5 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	5/6/2023

Toll Plaza to Lyons Road

SR 91 SB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1820+00	11.0	71.00	3550.0
1826+00	11.0	36.50	35800.0
1830+00	10.0	27.00	48500.0
1835+00	10.0	6.00	56750.0
1840+00	10.0	18.00	62750.0
1841+00	10.0	1.00	63700.0

Floodplain elevation **8.00** **Zone AH**

SR 91 NB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1796+00	8.0	0.00	0.0
1797+00	8.0	0.00	0.0
1798+00	8.0	0.00	0.0
1799+00	8.0	0.00	0.0
1800+00	8.0	0.00	0.0

Floodplain elevation **9.00** **Zone AE**

SR 91 NB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1800+00	9.0	0.00	0.0
1802+00	9.0	92.00	9200.0
1805+00	9.0	75.00	34250.0
1806+00	9.0	11.00	38550.0
1810+00	9.0	19.00	44550.0
1814+00	9.0	17.00	51750.0
1815+00	9.0	11.00	53150
1816+00	9.0	0.0	53[illegible].0

Floodplain elevation [illegible] **Zone AE**

SR 91 NB ML

Sta.	FEMA EL.	Fill	Cumu Fill c.f.
1820+00	10	0.00	[illegible]
1821+00	10	17.00	8[illegible]0
1822+00	10.0	6.00	2[illegible].0
1826+00	10.0	[illegible]00	[illegible]00.0
1830+00	10.0	0	[illegible]600.0
1834+00	10.0	0.00	3600.0
1835+00	10.0	44.00	5800.0
1836+00	10.0	0.00	8000.0

Total Fill 125400.0 cubic feet

Net Fill in Floodplain

125400.0 cubic feet
4644.4 cubic yards
2.9 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	5/6/2023

Lyons Road to Atlantic Blvd.

Floodplain elevation **10.00** **Zone AE**
SR 91 NB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1838+00	10.0	0.00	0.0
1842+00	10.0	94.50	18900.0
1846+00	10.0	54.00	48600.0
1850+00	10.0	76.00	74600.0
1851+00	10.0	0.00	78400.0

Floodplain elevation **10.00** **AE**
SR 91 NB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1854+00	10.0	0.00	0.0
1858+00	10.0	15.50	3100.0
1862+00	10.0	0.00	6200.0
1866+00	10.0	19.50	10100.0
1868+00	10.0	15.50	13600.0
1870+00	10.0	32.00	18350.0
1871+00	10.0	0.00	19950.0

Floodplain elevation **11.00** **Zone AH**
SR 91 SB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1848+00	11.0	0.00	0.0
1849+00	11.0	50.00	2500.0
1850+00	11.0	26.00	6300.0
1854+00	11.0	4.00	12300.0
1858+00	11.0	1.00	13300
1860+00	11.0	0.00	13[illegible].0

Floodplain elevation **[illegible]** **Zone AE**
SR 91 NB ML

Sta.	FEMA EL.	Fill	Cumu Fill c.f.
1879+00	10	0.00	[illegible]0
1880+00	10	34.00	17[illegible].0
1882+00	10.0	19.50	70[illegible].0
1883+00	10.0	[illegible]00	[illegible]5.0
1884+00	10.0	1[illegible]	[illegible]825.0
1885+00	10.0	7.00	10675.0
1886+00	10.0	0.00	11025.0

Floodplain elevation **10.00** **Zone AE**
SR 91 SB ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1879+00	10.0	0.00	0.0
1880+00	10.0	0.00	0.0
1882+00	10.0	14.00	1400.0
1883+00	10.0	5.00	2350.0
1884+00	10.0	6.00	2900.0
1885+00	10.0	2.00	3300.0
1886+00	10.0	0.00	3400.0
1888+00	10.0	0.00	3400.0

Total Fill 126175.0 cubic feet

Net Fill in Floodplain

126175.0 cubic feet
4673.1 cubic yards
2.9 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Atlantic Blvd Interchange

Floodplain elevation **11.00** **Zone AH**

SR 91 SB On-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1865+00	11.0	0.00	0.0
1866+00	11.0	2.00	100.0
1870+00	11.0	27.50	6000.0
1874+00	11.0	20.50	15600.0
1878+00	11.0	19.50	23600.0
1882+00	11.0	37.50	35000.0
1883+00	11.0	17.50	37750.0
1884+00	11.0	0.00	38625.0

Floodplain elevation **10.00** **Zone AE**

SR 91 NB On-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulat. Fill c.f.
1883+00	10.0	0.00	0.0
1884+00	10.0	201.00	0050.0
1885+00	10.0	100.00	0.0
1886+00	10.0	156.0	00.0
1887+00	10.0	0.00	0.0

Total Fill 92325.0 cubic feet

Net Fill in Floodplain

92325.0 cubic feet
3419.4 cubic yards
2.1 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Cypress Creek Rd Interchange

Floodplain elevation **5.00** **Zone AE**

Loop Ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
0010+00	5.0	0.00	0.0
0018+00	5.0	548.00	219200.0
0019+00	5.0	0.00	246600.0

Total Fill 246600.0 cubic feet

Net Fill in Floodplain **2[illegible]600.[illegible] cubic feet**
9133.3 [illegible]bic yards
5.7 acr[illegible]eet

C-14 Basin (North)

C-14 Canal to Sample Road

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW Requirements C-14 Canal (Atlantic Blvd. to Sample Road)

FPC-1A & 1B

Floodplain Elevations Vary Between 11.0 and 14.0 NAVD88

	Existing Ground at Pond site =	10.00	NAVD 88 (Estimated From GIS Topographic Information)
	Elev SHW =	5.43	NAVD 88 (C-14 Control Elevation 5.43 taken from FPID 406097-1
Floodplain Comp Volume Required		31.50	AC-FT.
Pond Area Based on floodplain volume		6.89	AC.
Storage Depth		4.57	FT.
Elev SHW=		5.43	NAVD
Top of Berm Elevation given a total depth =		10.00	NAVD
Unit Length Based on L/W = 2		775	FT.
Unit Width Based on L/W = 2		387	FT.
Maintenance Berm Width of 15-ft		15	FT.
Grade Adjustment Width Assumed 1:2		0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth		37	FT.
Total Pond Length (including maintenance berm and adjustments)		826	FT.
Total Pond Width (including maintenance berm and adjustments)		439	FT.
Preliminary Property Size Required		8.33	A
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATIO		8	AC.

Note: Encroachment calculated from floodplain elevation down to existing ground or canal control elevation whichever is high

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW Requirements C-14 Canal (Atlantic Blvd. to Sample Road)

FPC-1C

Floodplain Elevations Vary Between 11.0 and 14.0 NAVD88

	Existing Ground at Pond site =	12.00	NAVD (Estimated From GIS Topographic Information)
	Elev SHW =	7.50	NAVD 88 (Control Elevation 7.50 taken from FPID 406150-1
Floodplain Comp Volume Required		15.30	AC-FT.
Pond Area Based on floodplain volume		3.40	AC.
Storage Depth		4.50	FT.
Elev SHW=		7.50	NAVD
Top of Berm Elevation given a total depth =		12.00	NAVD
Unit Length Based on L/W = 2		544	FT.
Unit Width Based on L/W = 2		272	FT.
Maintenance Berm Width of 15-ft		15	FT.
Grade Adjustment Width Assumed 1:2		0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth		36	FT.
Total Pond Length (including maintenance berm and adjustments)		595	FT.
Total Pond Width (including maintenance berm and adjustments)		323	FT.
Preliminary Property Size Required		4.42	A
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION		4 .	AC.

Note: Encroachment calculated from floodplain elevation down to existing ground or canal control evation whichever is high

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW Requirements C-14 Canal (Atlantic Blvd. to Sample Road)

FPC-2A

Floodplain Elevations Vary Between 11.0 and 14.0 NAVD88

	Existing Ground at Pond site =	10.00	NAVD (Estimated From GIS Topographic Information)
	Elev SHW =	5.43	NAVD 88 (C-14 Control Elevation 5.43 taken from FPID 406097-1
Floodplain Comp Volume Required		17.00	AC-FT.
Pond Area Based on floodplain volume		3.72	AC.
Storage Depth		4.57	FT.
Elev SHW=		5.43	NAVD
Top of Berm Elevation given a total depth =		10.00	NAVD
Unit Length Based on L/W = 2		569	FT.
Unit Width Based on L/W = 2		285	FT.
Maintenance Berm Width of 15-ft		15	FT.
Grade Adjustment Width Assumed 1:2		0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth		37	FT.
Total Pond Length (including maintenance berm and adjustments)		621	FT.
Total Pond Width (including maintenance berm and adjustments)		336	FT.
Preliminary Property Size Required		4.79	A
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION		4	AC.

Note: Encroachment calculated from floodplain elevation down to existing ground or canal control elevation whichever is high

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW Requirements C-14 Canal (Atlantic Blvd. to Sample Road)

FPC-2B

Floodplain Elevations Vary Between 11.0 and 14.0 NAVD88

	Existing Ground at Pond site =	10.00	NAVD (Estimated From GIS Topographic Information)
	Elev SHW =	5.43	NAVD 88 (C-14 Control Elevation 5.43 taken from FPID 406097-1
Floodplain Comp Volume Required		10.00	AC-FT.
Pond Area Based on floodplain volume		2.19	AC.
Storage Depth		4.57	FT.
Elev SHW=		5.43	NAVD
Top of Berm Elevation given a total depth =		10.00	NAVD
Unit Length Based on L/W = 2		437	FT.
Unit Width Based on L/W = 2		218	FT.
Maintenance Berm Width of 15-ft		15	FT.
Grade Adjustment Width Assumed 1:2		0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth		37	FT.
Total Pond Length (including maintenance berm and adjustments)		488	FT.
Total Pond Width (including maintenance berm and adjustments)		270	FT.
Preliminary Property Size Required		3.02	A
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATIO		3	AC.

Note: Encroachment calculated from floodplain elevation down to existing ground or canal control elevation whichever is high

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW Requirements C-14 Canal (Atlantic Blvd. to Sample Road)

FPC-2C

Floodplain Elevations Vary Between 11.0 and 14.0 NAVD88

	Existing Ground at Pond site =	12.00	NAVD (Estimated From GIS Topographic Information)
	Elev SHW =	7.50	NAVD 88 (Control Elevation 7.50 taken from FPID 406150-1
Floodplain Comp Volume Required		19.80	AC-FT.
Pond Area Based on floodplain volume		4.40	AC.
Storage Depth		4.50	FT.
Elev SHW=		7.50	NAVD
Top of Berm Elevation given a total depth =		12.00	NAVD
Unit Length Based on L/W = 2		619	FT.
Unit Width Based on L/W = 2		310	FT.
Maintenance Berm Width of 15-ft		15	FT.
Grade Adjustment Width Assumed 1:2		0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth		36	FT.
Total Pond Length (including maintenance berm and adjustments)		670	FT.
Total Pond Width (including maintenance berm and adjustments)		361	FT.
Preliminary Property Size Required		5.55	A
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION		[illegible]	AC.

Note: Encroachment calculated from floodplain elevation down to existing ground or canal control [illegible]evation whichever is high[illegible]

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	5/6/2023

Atlantic (C-14 Canal) to Coconut Creek Blvd.

Floodplain elevation **11.00** **Zone AE**

Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1894+50	11.0	0.00	0.0
1897+00	11.0	0.00	0.0
1901+00	11.0	63.00	12600.0
1905+00	11.0	97.00	44600.0
1909+00	11.0	112.00	86400.0
1913+00	11.0	111.00	131000.0
1917+00	11.0	148.00	182800.0
1921+00	12.0	111.00	234600.0
1925+00	11.0	168.00	290400.0
1929+00	11.0	199.00	363800.0
1933+00	11.0	204.00	444400
1937+00	11.0	198.00	524800
1941+00	11.0	224.00	609200.0
1945+00	11.0	146.00	683200.0
1949+00	11.0	148.00	74200
1953+00	11.0	61.00	83800
1955+00	11.0	0.00	0.0

0060+50

Floodplain elevation **12.00** **Zone AH**

Northbound

Sta.	EL.	Fill s.f.	Cumulative Fill c.f.
194 00	11.0	0.00	0.0
1943+	11.0	151.00	7550.0
1945+00	11	234.00	46050.0
1949+00	.0	98.00	112450.0
1953+00	11.0	98.00	151650.0
1955+00	11.0	2.00	161650.0
1956+00	11.0	0.00	161750.0

Total Fill 951650.0 cubic feet

Net Fill in Floodplain

951650.0 cubic feet
35246.3 cubic yards
21.8 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Coconut Creek Interchange

Floodplain elevation **11.00** **Zone AE**

Northbound Off-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1957+00	11.0	0.00	0.0
1958+00	11.0	153.00	7650.0
1962+00	11.0	0.00	38250.0

Floodplain elevation **14.00** **Zone AH**

Northbound On-ramp (toll plaza/roundabout area)

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1958+00	14.0	0.00	0.0
1962+00	14.0	495.00	99000.0
1966+00	14.0	72.50	212500.0
1970+00	14.0	61.50	239300.0
1972+00	14.0	131.50	258600.0
1974+00	14.0	63.50	[illegible]
1976+00	14.0	49.50	[illegible]
1978+00	14.0	0.00	[illegible]

Floodplain elevation **12.00** **Zone AE**

Northbound On-ramp [illegible] plaza/[illegible]ndabout [illegible]ea)

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
197[illegible]00	12.0	0.00	0.0
197[illegible]00	12.0	6.00	600.0
1982+00	12.0	8.50	3500.0
1986+00	12.0	1.00	5400.0
1988+00	[illegible]	0.00	5500.0

Floodplain elevation **14.00** **Zone AH**

Southbound OFF-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
0000+00	14.0	0.00	0.0
0000+41	14.0	36.00	738.0
0002+72	14.0	18.50	7032.8
0003+30	14.0	0.00	7569.3

Total Fill 345669.3 cubic feet

Net Fill in Floodplain

345669.3 cubic feet
12802.6 cubic yards
7.9 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Dr MLK to Copans Rd

Floodplain elevation **14.00** **Zone AE**
Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1955+00	14.0	0.00	0.0
1958+00	14.0	158.00	23700.0
1960+00	14.0	149.00	54400.0
1962+00	14.0	129.00	82200.0

Floodplain elevation **13.00** **Zone AH**
Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1960+00	13.0	149.00	745[illegible]
1962+00	13.0	129.00	35250.[illegible]
1966+00	13.0	91.00	79250.0
1968+00	13.0	72.00	[illegible]50.0
1970+00	13.0	0.00	10275[illegible]

Floodplain elevation **12.[illegible]** **Zone AH**
Southbound

Sta.	FEMA [illegible]	F[illegible].f.	Cumulative Fill c.f.
197[illegible]00	12.[illegible]	[illegible]	0.0
1[illegible]+00	12.0	0.00	0.0
1974[illegible]	12.0	0.00	0.0
1976+0[illegible]	12.[illegible]	44.00	4400.0
1978+00	[illegible].0	0.00	8800.0

Floodplain elevation **12.00** **Zone AH**
Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
1993+00	12.0	38.00	1900.0
1994+00	12.0	29.00	5250.0
1998+00	12.0	17.00	14450.0
2002+00	12.0	5.00	18850.0

Total Fill 212600.0 cubic feet

Net Fill in Floodplain

212600.0 cubic feet
7874.1 cubic yards
4.9 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Copans Rd to Sample Rd

Floodplain elevation **12.00** **Zone AH**

SR 91 Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2017+00	12.0	0.00	0.0
2020+00	12.0	41.00	6150.0
2025+00	12.0	96.00	40400.0
2030+00	12.0	94.00	87900.0
2035+00	12.0	98.00	135900.0
2039+00	12.0	123.00	180100.0
2040+00	12.0	122.00	192350.0
2041+00	12.0	251.00	211000.0
2045+00	12.0	274.00	316000.0
2049+00	12.0	0.00	370800.0

Floodplain elevation **12.00** **Zone AE**

SR 91 Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2049+00	12.0	[illegible]	[illegible].0
2050+84	12.0	203.[illegible]	1[illegible]76.0
2051+55	12[illegible]	201[illegible]	33[illegible]18.0
2053+41	12.0	[illegible].00	[illegible]1241.0
2054+32	[illegible].0	[illegible]8.00	82070.0
2055[illegible]36	12.[illegible]	2[illegible]00	84670.0
2[illegible]6+00	12.0	314.00	95422.0
2056[illegible]0	12.0	0.00	103272.0

Total Fill 474072.0 cubic feet

Net Fill in Floodplain

474072.0 cubic feet
17558.2 cubic yards
10.9 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Sample Rd Interchange

Floodplain elevation **12.00** **Zone AH**

Bike Path

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
0000+00	12.0	0.00	0.0
0000+80	12.0	168.00	6720.0
0001+80	12.0	45.00	17370.0
0002+80	12.0	0.00	19620.0

Floodplain elevation **11.00** **Zone AE**

Sample Rd Eastbound to SR 91 On-ramp

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
0000+00	11.0	0.00	0.0
0000+10	11.0	20.50	102.5
0001+05	11.0	9.00	1503.8
0004+05	11.0	4.00	3453.8
0006+20	11.0	5.00	4421.3
0007+10	11.0	0.00	46

Floodplain elevation **11.00** **Zone**

Sample Rd On-ramp to SR 91 Northbound

Sta.	FEMA EL.	s.f.	Fill c.f.
0000+00	11.0	00	450.0
0002+00		15	2850.0
0003+90	11.0	24.00	6555.0
0004	11.0	.00	7055.0
0005+	11.0	.00	11475.0
0007+30	11.0	.00	15375.0
0007+50		0.00	15635.0

Floodplain elevation **12.00** **Zone AE**

Sample Rd Eastbound On-ramp to SR 91 Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2050+84	12.0	0.00	0.0
2051+55	12.0	64.00	2272.0
2053+41	12.0	124.00	19756.0
2054+15	12.0	69.50	26938.7
2054+32	12.0	184.00	29063.1
2055+36	12.0	0.00	38631.1

Total Fill 78532.3 cubic feet

Net Fill in Floodplain

78532.3 cubic feet
2908.6 cubic yards
1.8 acre-feet

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Floodplain elevation **12.00** **Zone AE**

Sample Rd Eastbound On-ramp to SR 91 Southbound

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2062+00	12.0	0.00	0.0
2063+00	12.0	64.00	3200.0
2067+00	12.0	0.00	16000.0

Floodplain elevation **13.00** **Zone AH**

SR 91 Southbound Off-ramp at Sample Rd

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2067+00	13.0	0.00	0.0
2068+00	13.0	24.50	1225.0
2069+00	13.0	32.00	4050.0
2070+00	13.0	40.00	7650.0
2071+00	13.0	56.50	12475.0
2072+00	13.0	44.00	17500.0
2073+00	13.0	84.50	23925.0
2074+00	13.0	88.50	32575.0
2075+00	13.0	25.50	38[illegible]
2076+00	13.0	0.00	39[illegible]0.0

Total Fill 555[illegible]0 cubic feet

Net Fill in Floodplain

55550.0 cubic feet
2057.4 cubic yards
1.3 acre-feet

Hillsboro Basin

Sample Road to Wiles Road

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW REQUIREMENTS - Basin Hillsboro Canal (Sample Road to Wiles Road)

FPC-1

Floodplain Elevations Vary Between 13.0 and 14.0 NAVD88

	Existing Ground at Pond site =	13.00	NAVD 88 (Estimated From GIS Topographic Information)
	Elev SHW =	8.90	NAVD 88 (SHW Elev taken from FPID 406150)
Floodplain Comp Volume Required		17.20	AC-FT.
Pond Area Based on floodplain volume		4.20	AC.
Storage Depth		4.10	FT.
Elev SHW=		8.90	NAVD
Top of Berm Elevation given a total depth =		13.00	NAVD
Unit Length Based on L/W = 2		605	FT.
Unit Width Based on L/W = 2		302	FT.
Maintenance Berm Width of 15-ft		15	FT.
Grade Adjustment Width Assumed 1:2		0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth		33	FT.
Total Pond Length (including maintenance berm and adjustments)		652	FT.
Total Pond Width (including maintenance berm and adjustments)		350	FT.
Preliminary Property Size Required		5.24	A
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATIO		5	AC.

Note: Encroachment calculated from floodplain elevation down to existing ground or canal control elevation whichever is high

Project Name:	FTE Widening from South of I-595 to Wiles Rd	**Prepared by:**	JAB
Project Number:	44221212201	**Checked by:**	RMG
Task Description:	Estimation of FPC ROW Requirements	**Date:**	6/5/2023

FPC ROW REQUIREMENTS - Basin Hillsboro Canal (Sample Road to Wiles Road)

FPC-2

Floodplain Elevations Vary Between 13.0 and 14.0 NAVD88

	Existing Ground at Pond site =	14.00	NAVD 88 (Estimated From GIS Topographic Information)
	Elev SHW =	9.00	NAVD 88 (SHW Elev taken from FPID 406150)
Floodplain Comp Volume Required		17.20	AC-FT.
Pond Area Based on floodplain volume		3.44	AC.
Storage Depth		5.00	FT.
Elev SHW=		9.00	NAVD
Top of Berm Elevation given a total depth =		14.00	NAVD
Unit Length Based on L/W = 2		547	FT.
Unit Width Based on L/W = 2		274	FT.
Maintenance Berm Width of 15-ft		15	FT.
Grade Adjustment Width Assumed 1:2		0	FT.
Horizontal Distance Based on a 1:4 Slope and total Depth		40	FT.
Total Pond Length (including maintenance berm and adjustments)		602	FT.
Total Pond Width (including maintenance berm and adjustments)		329	FT.
Preliminary Property Size Required		4.55	A
MINIMUM PROPERTY SIZE FOR TREATMENT & ATTENUATION		4	AC.

Note: Encroachment calculated from floodplain elevation down to existing ground or canal control elevation whichever is high

Project Name:	I-595 TO WILES	Designer:	JAB
FPID:	44221212201	Checked by:	RMG
County:	Broward	Date:	4/22/2023

Sample Rd to Wiles Rd

Floodplain elevation **13.00** **Zone AE**

SR 91 Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2062+00	13.0	10.00	500.0
2063+00	13.0	70.00	4500.0
2064+00	13.0	72.00	11600.0
2065+00	13.0	88.00	19600.0
2066+00	13.0	81.00	28050.0
2067+00	13.0	100.00	37100.0
2068+00	13.0	96.00	46900.0
2067+50	13.0	0.00	44500.0

Floodplain elevation **13.00** **Zone AH**

SR 91 Southbound ML

Sta.	FEMA EL.	Fill s.f.	Cumulat. Fill c.f.
2067+00	13.0	100.00	500[illegible]
2068+00	13.0	96.00	480[illegible]
2069+00	13.0	[illegible].00	[illegible].0
2070+00	13.0	115.[illegible]	3[illegible]50.0
2071+00	13.[illegible]	96.0[illegible]	462[illegible].0
2072+00	13.0	10[illegible]	[illegible]100.0
2073+00	13.0	[illegible]2.00	66300.0
2074+[illegible]	13[illegible]	1[illegible].00	78000.0
207[illegible]+00	13.0	101.[illegible]	89650.0
20[illegible]+00	13.0	159.00	102650.0
2075+[illegible]	13.0	0.00	98675.0

Floodplain elevation **14.00** **Zone AH**

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2075+00	14.0	101.00	5050.0
2076+00	14.0	159.00	18050.0
2078+00	14.0	224.00	56350.0
2080+00	14.0	172.00	95950.0
2082+00	14.0	174.00	130550.0
2083+00	14.0	168.00	147650.0
2084+00	14.0	153.00	163700.0
2083+50	14.0	0.00	159875.0

Floodplain elevation **14.00** **Zone AE**

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2084+00	14.0	153.00	7650.0
2085+00	14.0	150.00	22800.0
2089+00	14.0	167.00	86200.0
2093+00	14.0	151.00	149800.0
2097+00	14.0	146.00	209200.0
2101+00	14.0	152.00	268800.0
2105+00	14.0	122.00	323600.0
2109+00	14.0	149.00	377800.0
2113+00	14.0	134.00	434400.0
2113+50	14.0	0.00	437750.0

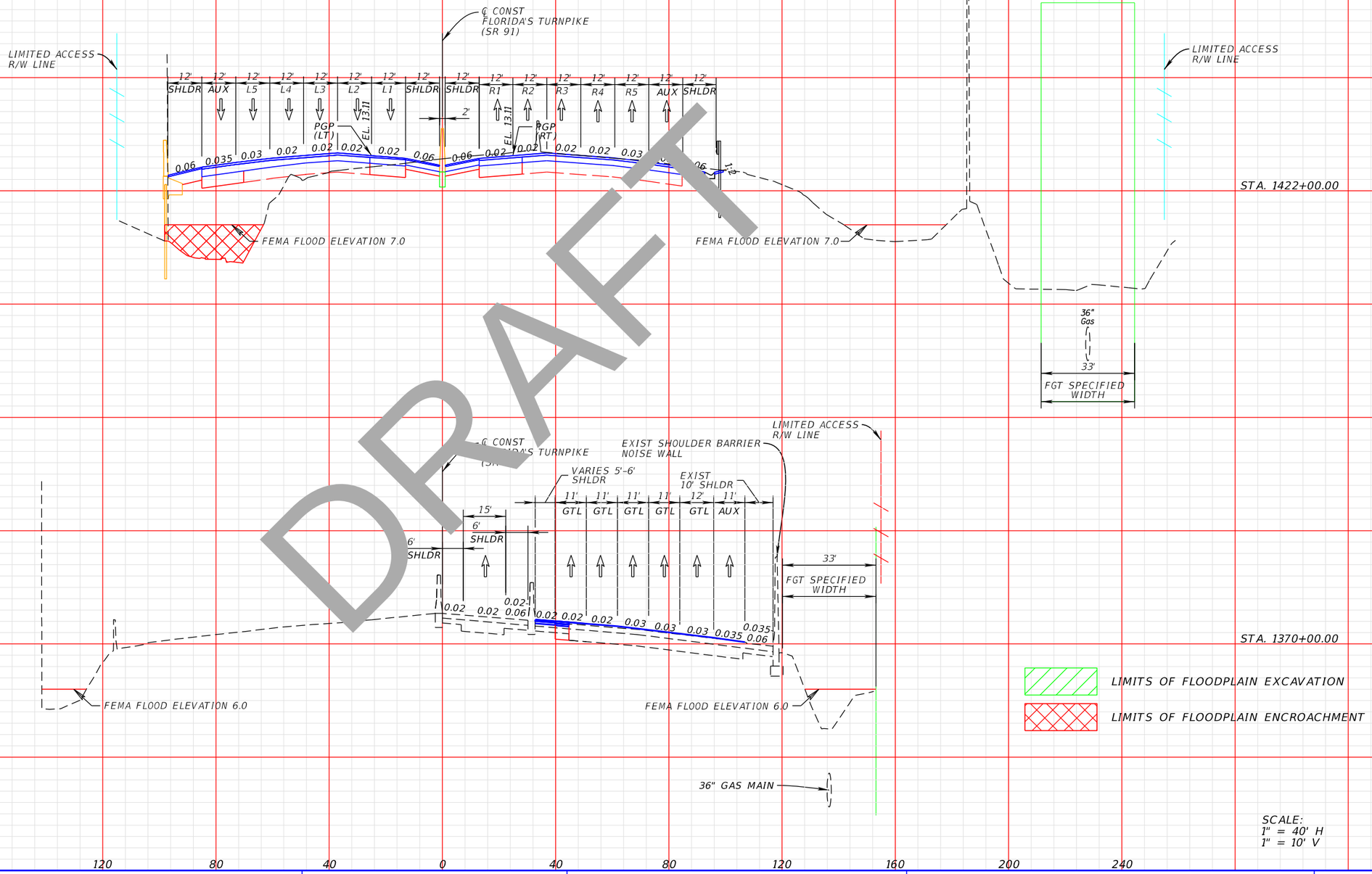
Floodplain elevation **13.00** **Zone AE**

Sta.	FEMA EL.	Fill s.f.	Cumulative Fill c.f.
2111+00	13.0	0.00	0.0
2113+31	13.0	75.50	8729.3
2114+00	13.0	0.00	11325.0

Total Fill 752125.0 cubic feet

Net Fill in Floodplain

752125.0 cubic feet
27856.5 cubic yards
17.3 acre-feet



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID

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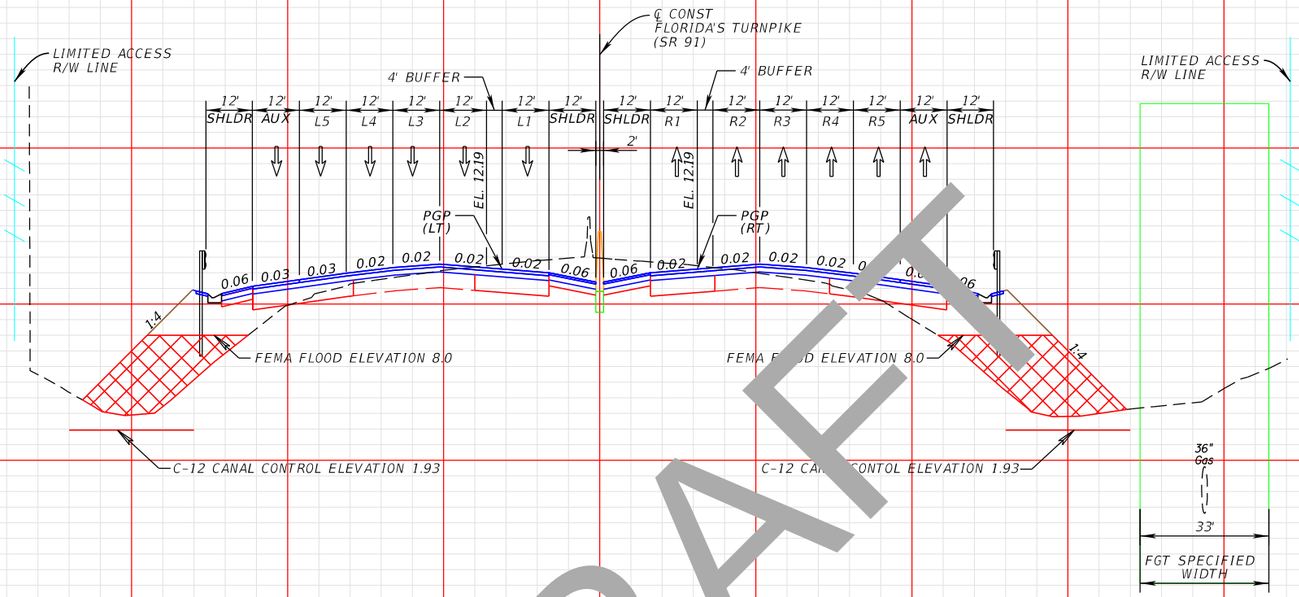

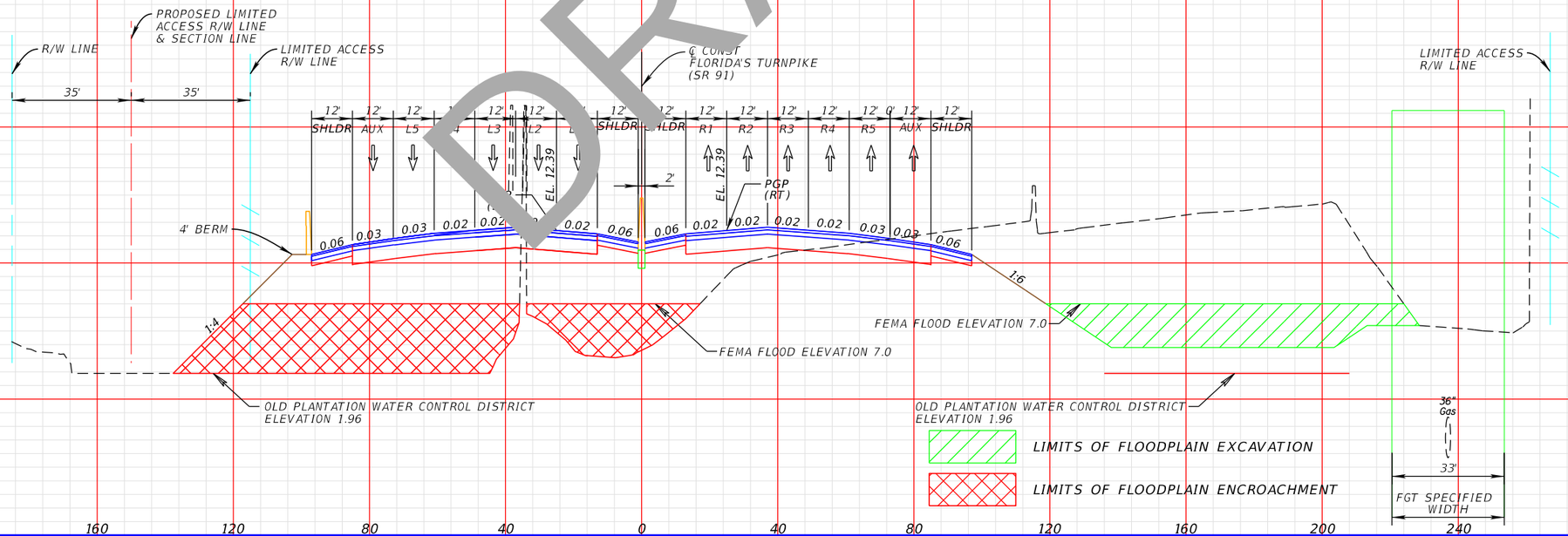

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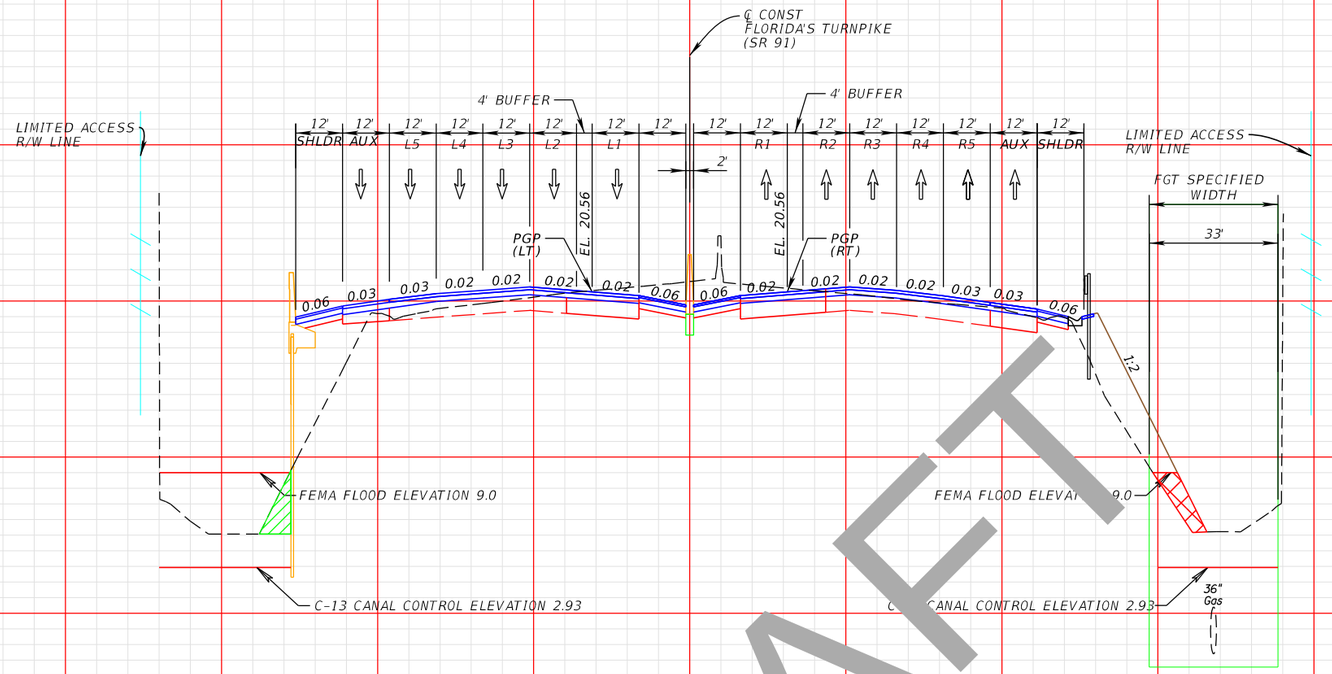

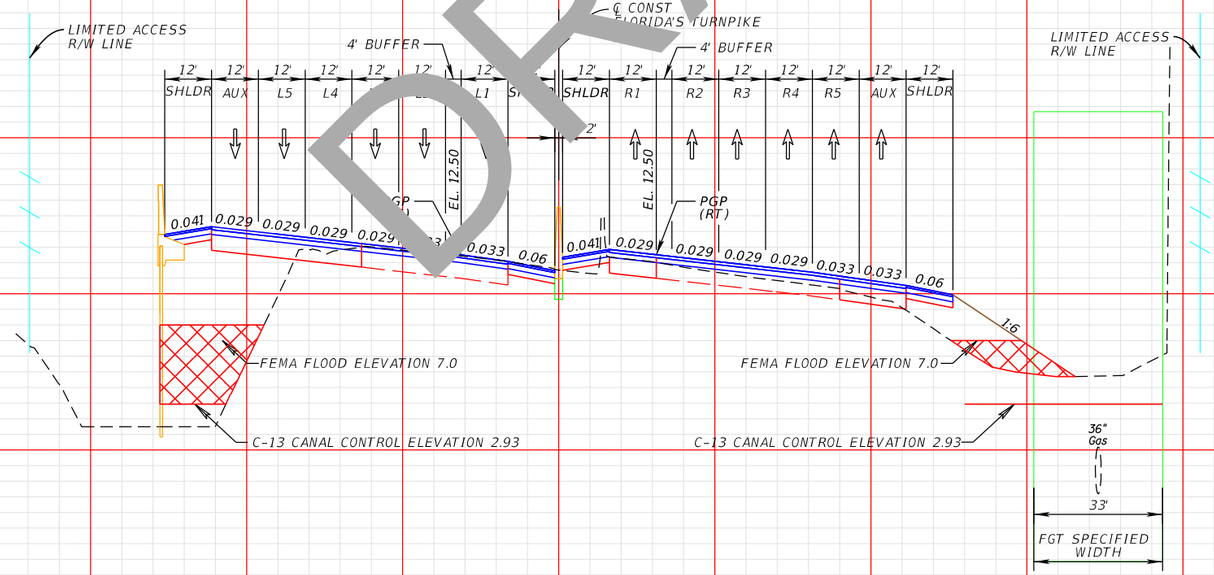

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID

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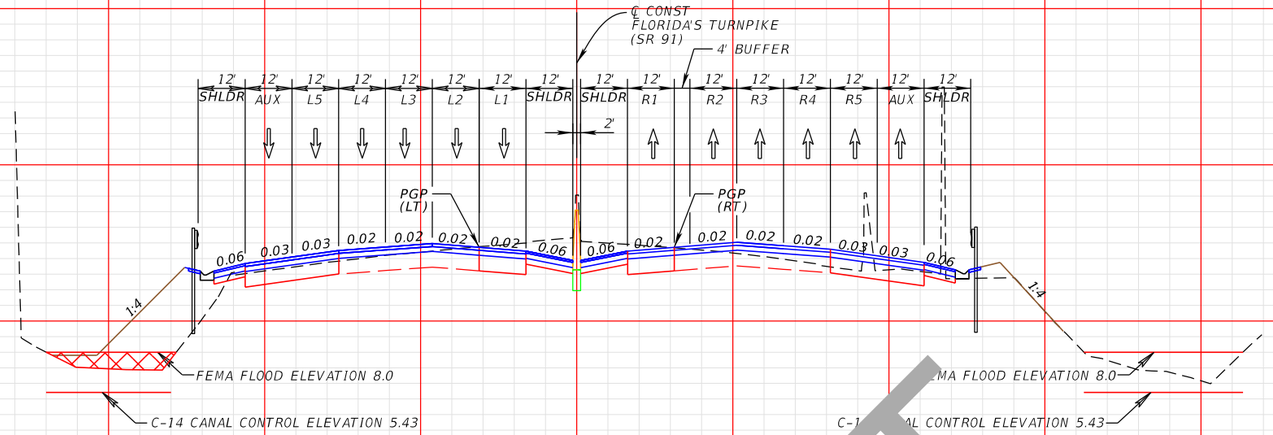

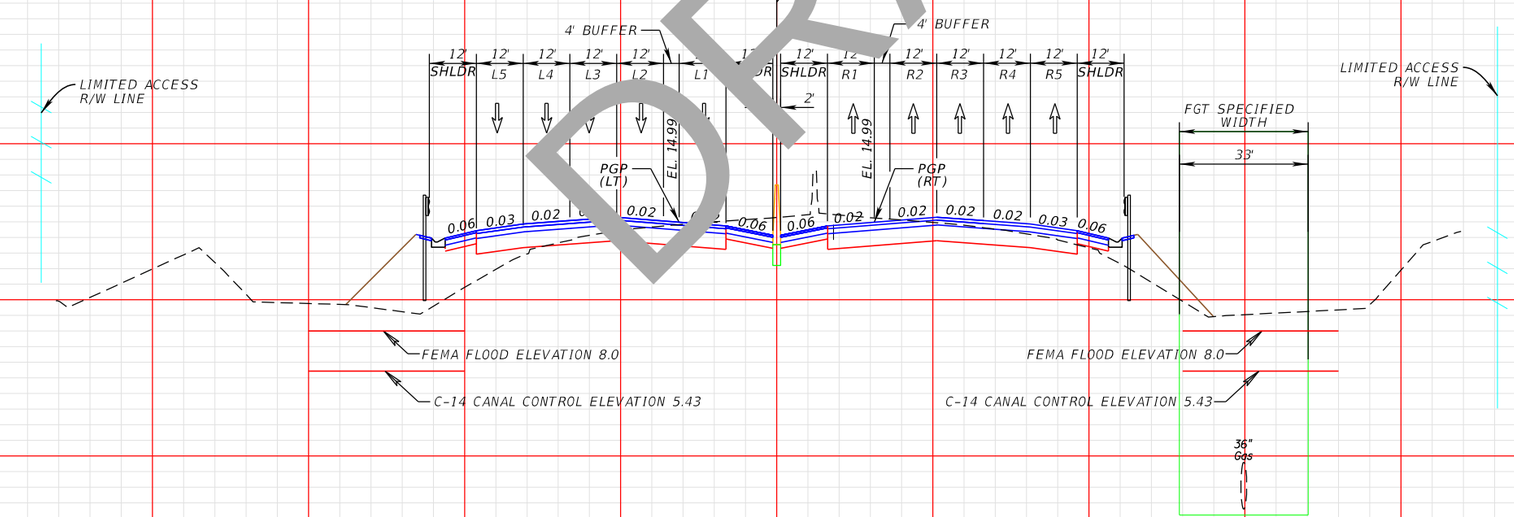

30 20 10 0

240 200 160 120 80 40 0 40 80 120 160 200 240

SCALE:
1" = 40' H
1" = 10' V

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
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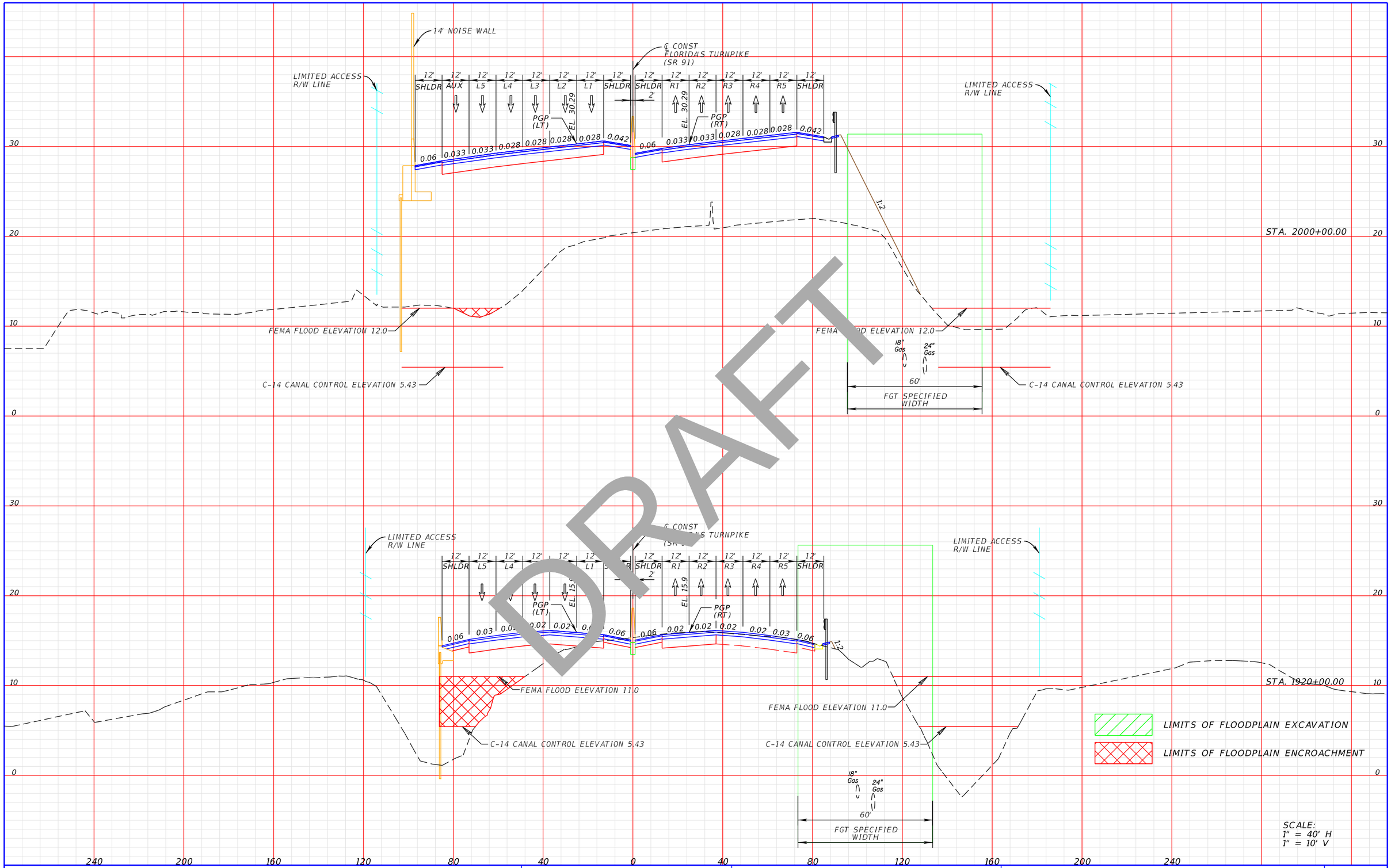
DRAFT

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID

SHEET NO.



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DATE	DESCRIPTION	DATE	DESCRIPTION
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID

SHEET NO.

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Appendix D: Evaluation Matrices

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: **Pond Evaluation Matrix**

Prepared by: RMG
Checked by:
Date: 5/13/2023

Begin Project to I-595 (C-11/N-4)	Alternative 1		Alternative 2		Alternative 3	
Description of Alternative	**FDOT Permitted Borrow Pit Pond**		**FDOT Permitted I-595 Pond System**		**NA**	
	Comments	**Cost**	**Comments**	**Cost**	**Comments**	**Cost**
Right of Way (ac.)	**0.00**		**0.00**		**2.22**	
Construction (ac.)[1][2]	Modify Control Struct.	$0	NA	$0	2.22	$226,982
Potential Contamination	Low		Low		Medium	
Utilities	NA - Existing Pond		NA - Existing Pond		No FGT or Power Line Impacts	
Listed Species	FBB-Low/EIS-Low/ WS-Moderate[4]		FBB-Low/EIS-Low/ WS-Moderate[4]		FBB-Low/EIS-Low/ WS-Moderate[4]	
Wetland Impacts (acres)	0.00		0.00		0.00	
Maintenance	NA - Existing Pond		NA - Existing Pond		Easy Access	
Cultural Resources	Low		Low		Low	
Aesthetics	NA - Existing Pond		NA - Existing Pond		NA -Minimal Space	
Other					NA -Minimal Space	
Total Cost	NA - Existing Pond		NA - Existing Pond		Unknown	
Advantages	Existing Pond		Existing Pond		None	
Disadvantages, etc	Requiring Existing Stormwater		None		Developed Parcel - Repurposed for stormwater mgmt.	
Preferred Pond Alternative			**X**			

1. $31,000 per acre for clearing and grubbing
2. $7.36 per cubic yard for excavation (Estimated at $71,244 per acre assuming one unit acre with a depth of six feet)
3. R/W line shows the offsite R/W not owned by FDOT. The Construction line shows the total area for which excavation is required.
4. FBB - Florida Bonneted Bat / EIS - Eastern Indigo Snake / WS - Woodstork

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Pond Evaluation Matrix

Prepared by: RMG
Checked by:
Date: 5/13/2023

I-595 to Peters (NNR)	Alternative 1		Alternative 2		Alternative 3	
Description of Alternative	**FDOT Permitted Pond**		**Ski Lake**		**NA**	
	Comments	**Cost**	**Comments**	**Cost**	**Comments**	**Cost**
Right of Way (ac.)	**0.00**		**34.85 ac.**		NA	
Construction (ac.)[1][2]	Modify Control Struct.		Already existing lake		NA	
Potential Contamination	Low		Medium		NA	
Utilities	NA - Existing Pond		Power lines over pond		NA	
Listed Species	FBB-Low/EIS-Low/ WS-Moderate[4]		FBB-Low/EIS-Low/ WS-Moderate[4]		NA	
Wetland Impacts (acres)	0.00		0		NA	
Maintenance	NA - Existing Pond		Large footprint		NA	
Cultural Resources	Low		Low		NA	
Aesthetics	NA - Existing Pond		Already existing lake		NA	
Other					NA	
Total Cost	NA - Existing Pond		Unknown		NA	
Advantages	Existing Pond. Owned by FDOT		Already existing lake		NA	
Disadvantages, etc	Requiring Existing Stormwater		Significant R/W cost		NA	
Preferred Pond Alternative	X					

1. $31,000 per acre for clearing and grubbing
2. $7.36 per cubic yard for excavation (Estimated at $7[illegible]4 per acre assuming one [illegible] acre with a depth of six feet)
3. R/W line shows the offsite R/W not owned by FDOT. [illegible] Construction line shows [illegible] total area for which excavation is required.
4. FBB - Florida Bonneted Bat / EIS - Eastern Indigo Snake / W[illegible] Woodstork

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: **Pond Evaluation Matrix**

Prepared by: RMG
Checked by:
Date: 5/13/2023

Peters to Oakland Park (C-12)	Scenario 1		Scenario 2		Scenario 3	
Description of Alternative	**Linear SMF/1A/1B/A thru E**		**Linear SMF/2A/2B/A thru E**		**NA**	
	Comments	**Cost**	**Comments**	**Cost**	**Comments**	**Cost**
Right of Way (ac.)	**0.00**		**6.37**		NA	
Construction (ac.)[1][2]	17.35	$1,773,933	18.49	,890,492	NA	
Potential Contamination	1A-Low/1B-High/ (A thru E)-Low		2A-Low/2B-Hi (A thru E)-Low		NA	
Utilities	Unknown		Within Power Easement		NA	
Listed Species	FBB-Low/EIS-Low/ WS-Moderate[4]		FBB-L /EIS ow/ WS-Mode [4]		NA	
Wetland Impacts (acres)	0.00				NA	
Maintenance	Normal		With Po Easement		NA	
Cultural Resources	Low		ow		NA	
Aesthetics	Efficient pond shape needed.		Within Power Easement. Shape restricted		NA	
Other					NA	
Total Cost	Unknow		Unknown		NA	
Advantages	Existing po or within existing inter ge infield area		No residential impacts for stormwater management pond		NA	
Disadvantages, etc	Impacts to law enforcement facility		Coordination with Power Company		NA	
Preferred Pond Alternative	**X**					

1. $31,000 per acre for clearing and grubbing
2. $7.36 per cubic yard for excavation (Estimated at $71,244 per acre assuming one unit acre with a depth of six feet)
3. R/W line shows the offsite R/W not owned by FDOT. The Construction line shows the total area for which excavation is required.
4. FBB - Florida Bonneted Bat / EIS - Eastern Indigo Snake / WS - Woodstork

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: **Pond Evaluation Matrix**

Prepared by: RMG
Checked by:
Date: 5/13/2023

Oakland Park to SR 7 (C-13)	Scenario 1		Scenario 2		Scenario 3	
Description of Alternative	1A/1B (1B-1/1B-2)		2A/2B (2B-1/2B-2)		3A/3B	
	Comments	**Cost**	**Comments**	**Cost**	**Comments**	**Cost**
Right of Way (ac.)	**3.19**		**1.98**		**14.78**	
Construction (ac.)[(1)(2)]	16.38	$1,674,757	15.72	,607,276	14.78	$1,511,166
Potential Contamination	1A-High/1B-Low		2A-High/2B-Low		3A-High/3B-Low	
Utilities	No FGT or Power Line Impacts		No FGT or Pow r Line Impacts		No FGT or Power Line Impacts	
Listed Species	FBB-Low/EIS-Low/ WS-Moderate[(4)]		FBB-L /EIS-Low/ WS oderate[(4)]		FBB-Low/EIS-Low/ WS-Moderate[(4)]	
Wetland Impacts (acres)	0.00		0.00		Unknown	
Maintenance	Normal		ormal		Normal	
Cultural Resources	Low		Low		Low	
Aesthetics	Residential impact required need to develop efficient pond shape		R dential impact quired need to velop efficient pond s pe		Opportunities to meander maintenance berm.	
Other						
Total Cost	Unknown		Unknown		Unknown	
Advantages	Southern d site within R/ equired for interchange		Southern pond site within R/W required for interchange		Southern pond site within R/W required for interchange	
Disadvantages, etc	Residential impact		None		None	
Preferred Pond Alternative	X					

1. $31,000 per acre for clearing and grubbing
2. $7.36 per cubic yard for excavation (Estimated at $71,244 per acre assuming one unit acre with a depth of six feet)
3. R/W line shows the offsite R/W not owned by FDOT. The Construction line shows the total area for which excavation is required.
4. FBB - Florida Bonneted Bat / EIS - Eastern Indigo Snake / WS - Woodstork

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: **Pond Evaluation Matrix**

Prepared by: RMG
Checked by:
Date: 5/13/2023

SR 7 to Atlantic (C-14)	Scenario 1		Scenario 2		Scenario 3	
Description of Alternative	1A-1/1A-2/1B/1C/1D		2A/2B		NA	
	Comments	**Cost**	**Comments**	**Cost**	**Comments**	**Cost**
Right of Way (ac.)	**12.91**		**23.74**		NA	NA
Construction (ac.)[1][2]	18.79	$1,921,165	12.91	$1,319,970	NA	NA
Potential Contamination	Low		Low		NA	NA
Utilities	No FGT or Power Line Impacts		No FGT or Power Line Impacts		NA	NA
Listed Species	FBB-Low/EIS-Low/ WS-Moderate[4]		FBB-Low/EIS-Low/ WS-Moderate[4]		NA	NA
Wetland Impacts (acres)	12.91		23.74		NA	NA
Maintenance	Normal		Normal		NA	NA
Cultural Resources	Low		Low		NA	NA
Aesthetics	Some Opportunities to meander maintenance berm.		Some Opportunities to meander maintenance berm.		NA	NA
Other					NA	NA
Total Cost	Unknown		Unknown		NA	NA
Advantages	Utilizes FDOT remnent parcels		More opportunities to enhance aesthetics		NA	NA
Disadvantages, etc	Impacts to Fern Forest Area		Impacts to Fern Forest Area		NA	NA
Preferred Pond Alternative	**X**					

1. $31,000 per acre for clearing and grubbing
2. $7.36 per cubic yard for excavation (Estimated at $71,244 per acre assuming one unit acre with a depth of six feet)
3. R/W line shows the offsite R/W not owned by FDOT. The Construction line shows the total area for which excavation is required.
4. FBB - Florida Bonneted Bat / EIS - Eastern Indigo Snake / WS - Woodstork

RS&H

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: **Pond Evaluation Matrix**

Prepared by: RMG
Checked by:
Date: 5/13/2023

Atlantic to Sample (C-14)	Scenario 1		Scenario 2		Scenario 3	
Description of Alternative	1A-1/1A-2/1B		2A/2B-1/2B-2/2C		NA	
	Comments	**Cost**	**Comments**	**Cost**	**Comments**	**Cost**
Right of Way (ac.)	**0.00**		**0.00**		NA	NA
Construction (ac.)[(1)(2)]	16.27	$1,663,510	21.11	,158,371	NA	NA
Potential Contamination	(1A-1)-Medium/(1A-2)-Low/1B-High		2A-Low/(2B-1)-Medium/(2B-2) Low/2C-H		NA	NA
Utilities	No impacts to Power or Gas		1B/2 - High		NA	NA
Listed Species	FBB-Low/EIS-Low/ WS-Moderate[(4)]		FBB-Lo Low/ WS-Modera [(4)]		NA	NA
Wetland Impacts (acres)	0.00		0.0		NA	NA
Maintenance	Normal		N nal		NA	NA
Cultural Resources	Low		ow		NA	NA
Aesthetics	Possibilities exist for pond shaping		P sibilities exist for pond shaping		NA	NA
Other					NA	NA
Total Cost	Unknown		Unknown		NA	NA
Advantages	Within FDO /W		Within FDOT R/W		NA	NA
Disadvantages, etc	More excavation		None		NA	NA
Preferred Pond Alternative	X					

1. $31,000 per acre for clearing and grubbing
2. $7.36 per cubic yard for excavation (Estimated at $71,244 per acre assuming one unit acre with a depth of six feet)
3. R/W line shows the offsite R/W not owned by FDOT. The Construction line shows the total area for which excavation is required.
4. FBB - Florida Bonneted Bat / EIS - Eastern Indigo Snake / WS - Woodstork

Project Name: FTE Widening from South of I-595 to Wiles Rd
Project Number: 44221212201
Task Description: Pond Evaluation Matrix

Prepared by: RMG
Checked by:
Date: 5/13/2023

Sample to Wiles (Hillsboro)	Alternative 1		Alternative 2		Alternative 3	
Description of Alternative	**Tradewinds Shared Use**		**Offsite at North End of Basin**		**Offsite at North End of Basin**	
	Comments	**Cost**	**Comments**	**Cost**	**Comments**	**Cost**
Right of Way (ac.)	**0.00**		**4.84**		**5.11**	
Construction (ac.)[(1)(2)]			4.84	494,861	5.11	$522,467
Potential Contamination	High		High		High	
Utilities	No FGT or Power Line Impacts		No FGT or Power Line Impacts		No FGT or Power Line Impacts	
Listed Species	FBB-Low/EIS-Low/ WS-Moderate[(4)]		FBB-Low/EIS-Low/ WS-Moderate[(4)]		FBB-Low/EIS-Low/ WS-Moderate[(4)]	
Wetland Impacts (acres)	2.45		4.84		0.00	
Maintenance	Normal		Normal		Normal	
Cultural Resources	Low		Low		Low	
Aesthetics	Small area need efficient pond shape		Opportunites to meander maintenance berm.		Opportunites to meander maintenance berm.	
Other						
Total Cost	Unknown		Unknown		Unknown	
Advantages	Shared use parcel - No offsite R/W required		Undeveloped parcel		Undeveloped parcel	
Disadvantages, etc	None		Offsite R/W required		Offsite R/W required	
Preferred Pond Alternative	**X**					

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2. $7.36 per cubic yard for excavation (Estimated at $71,244 per acre assuming one unit acre with a depth of six feet)
3. R/W line shows the offsite R/W not owned by FDOT. The Construction line shows the total area for which excavation is required.
4. FBB - Florida Bonneted Bat / EIS - Eastern Indigo Snake / WS - Woodstork

Appendix E: Correspondence, Meeting Minutes, and Excerpts from Previous Permits and Studies

MEETING MINUTES

Florida Department of Transportation

RON DESANTIS
GOVERNOR

Florida's Turnpike Enterprise
P.O. Box 613069, Ocoee, FL 34761
407-532-3999

KEVIN J. THIBAULT, P.E.
SECRETARY

FDOT/SFWMD/USACE/USEPA Interagency Meeting

PROJECT: **Turnpike Mainline Widening PD&E Study (FPID 442212-1-22-01)**
From South of I-595 to Wiles Road MP 53 to MP 70
Broward County

MEETING DATE: May 20, 2021

MEETING TIME: 11:20 AM

LOCATION: WebEx

ATTENDEES:

Dustin Wood, PE	SFWMD	Erin Yao, PE	FTE
Jesse Markle, PE	SFWMD	Fred Gaine, PWS	FTE/Atkins
Beverly Miller	SFWMD	Jazlyn Heywood, PE	FTE/Atkins
Teri Swartz, PE	SFWMD	Lisa Stone, PE	Kimley Horn
Andrea Sanchez	SFWMD	Robert Garrigues, PE	RS&H
Wayne Blythe	SFWMD	Chris Bailey	RS&H
Cynthia Ovdenk	USACE	Gin Ng, PE	Kimley Horn
Alya Singh-White	USEPA		

Introductions

Project Description

RS&H staff described the project limits and proposed improvements through the corridor. The attached slides were used to illustrate the proposed improvements. Below is a summary of the improvements discussed:

- North New River Basin
  - New bridge structure over SFWMD North New River Canal
  - North New River is tidal and includes navigational clearances.
- C-12 Canal Basin
  - Roadway shifts to the west
  - Existing Turnpike bridge over the SFWMD C-12 Canal can accommodate improvements.
  - Sunrise Blvd, east of Florida's Turnpike – additional eastbound thru-lane. Existing canal volume to be maintained.
- C-13 Canal Basin
  - New mainline and additional local bridges over the SFWMD C-13 Canal.
  - No changes to the existing canal volume are anticipated.

    - A maintenance access will be evaluated and coordinated with SFWMD.
- C-14 Canal Basin
    - Replacement of mainline bridges and ramp bridges over the SFWMD C-14 Canal.
    - No changes to the existing canal volume are anticipated.
    - A maintenance access will be evaluated and coordinated with SFWMD.
- Atlantic Avenue to Wiles Road
    - No additional canal crossings in this section

Discussion Items

- SFWMD staff noted that WBID 3277A is a verified impaired WBID and would have to provide 150% treatment in the nutrient analysis. FTE staff noted that it is unclear how the additional treatment would benefit the removal of copper. FTE staff indicated that FDOT is continuing to work with SFWMD on this issue relative to direct discharges to impaired waterbodies, and the comment is appreciated.
- SFWMD staff provided clarification that the improvements within the C-12, C-13 and C14 Canal Right of Ways will require a USACE S408 review. The North New River Canal at the project location is not a USACE S408 resource.
- SFWMD staff noted that the ROW permit drawings and documents should have the existing SFWMD canal right of way clearly shown as "SFWMD ROW". FTE staff noted that SFWMD has provided existing ROW information, and that info will be passed along to the project team. SFWMD staff noted the following ROW Occupancy Permit numbers:
    - North New River – Permit #8098
    - C-12 – Permit # 4[illegible]
    - C-13 – Permit #[illegible]448
    - C-14 – Permit #[illegible]493
- FTE staff asked if there was Comprehensive Everglades Restoration Plan (CERP) information support that SFWMD could provide, especially for the C-12, C-13 and C-14 Canals. SFWMD staff noted that and CERP information will be passed along. USACE noted that they will also provide any CERP information available to FTE.
- FTE staff asked if there was any guidance on retained waters. USACE noted that FDOT will work through the SFWMD for the S408 permits.
- RS&H staff asked if there were any ongoing projects that had any potential for joint-use stormwater. FTE noted that there will be some ongoing stakeholder meetings scheduled and joint-use will be a discussion item. SFWMD staff noted that as meetings are set, invite SFWMD staff as optional attendees.

Meeting concluded at approximately 11:57 am.

Action Items

Invite SFWMD staff to stakeholder meetings regarding joint-use stormwater opportunities.

Attachments: Detailed maps and slides

Florida Department of Transportation

RON DESANTIS
GOVERNOR

Florida's Turnpike Enterprise
P.O. Box 613069, Ocoee, FL 34761
407-532-3999

JARED W. PERDUE, P.E.
SECRETARY

PROJECT: **Turnpike Mainline Widening PD&E Study**
FPID#: 442212-1-22-01 From South of I-595 to Wiles Road MP 53 to MP 70
Broward County
Stormwater Stakeholders – Environmental Look Around Meeting No. 1

MEETING DATE: November 9th, 2021

MEETING TIME: 11:00 AM

LOCATION: Virtual Team Meeting

The following were in attendance:

Name	Organization	Phone #	E-mail
Annemarie Hammond	FTE Permits Coordinator	407-264-3293	annemarie.hammond@dot.state.fl.us
Erin Yao, PE	FTE Drainage	407-264-3479	erin.yao@dot.state.fl.us
Jazlyn Heywood, PE	FTE/Atkins PD&E Project Manager	407-264-3298	jazlyn.heywood@dot.state.fl.us
Kevin Stewart, PE	FTE/Atkins Drainage	407-264-3417	kevin.stewart@dot.state.fl.us
Fred Gaines, PWS	FTE/Atkins EMO	407-264-3689	fred.gaines@dot.state.fl.us
Rob Garrigues, PE	RS&H Drainage	813-289-2666	Robert.Garrigues@rsandh.com
Chris Dailey	RS&H Environmental	813-636-2722	chris.dailey@rsandh.com
Lisa Stone, PE	KHA PM	561-840-0826	lisa.stone@kimley-horn.com
Gin Ng, PE	KHA Engr Lead	561-840-0872	gin.ng@kimley-horn.com
Carl Archie, PE	Broward County Stormwater WCD 2,3,4 and Cocomar		carchie@broward.org
Vilma Melendez, PE	Broward County Water Management Division		vmelendez@broward.org
Susan Bodmann, PG	Broward County Director of Water Management		sbodmann@broward.org

Background

As part of the PD&E study, FDOT, Florida's Turnpike Enterprise (FTE) conducts an Environmental Look Around within the corridor to identify potential shared stormwater opportunities between FTE and adjacent stormwater stakeholders. The PD&E team understands that there is a significant need for stormwater within this area of Broward County and the primary focus of this meeting is to coordinate with Broward County Water Control Districts (WCD) WCD-2, WCD-3, WCD-4 and Cocomar WCD to determine if and where those opportunities may exist.

Overall Project Information

- The Turnpike mainline project extends from just south of the I-595 interchange to Wiles Road which is just south of the Sawgrass Expressway. The PD&E study is evaluating a 10-lane typical section with modifications at six interchanges.
- Expansion of the existing corridor capacity is needed to enhance safety and accommodate travel demands out to the year 2045. Capacity expansion will improve travel time and reliability as well as

enhancing emergency response and evacuation. One of the major goals is to improve South Florida's economic and employment viability.

- A public information meeting is scheduled for January 2022 and the PD&E component of the project is expected to wrap up by the end of 2022.
- The focus of this meeting today would be the northern segment of the project from SR 7 to Wiles Road. Other meetings focusing on the southern segment of the project would be held later. This second meeting would include the Tindall Hammock Irrigation and Soil Conservation District (THISCD), Old Plantation Water Control District (OPWCD), City of Plantation and City of Lauderhill. A third meeting was currently being scheduled to discuss the corridor as a whole and would include Broward County as well as the wellfield owners.

Note: The following descriptions are based on PowerPoint figures shared at the meeting and do not necessarily conform to the verbal presentation given.

Proposed Design

- The existing roadway will be widened to 10 lanes, 5-lane in each direction. Acceleration and deceleration in each direction and in some locations, there will be auxiliary lanes

- SR 7 – The existing bridge over SR 7 will be replaced as part of the proposed widening.

- Cypress Creek Road – A new interchange is being considered for this location and will include the addition of a new northbound on-ramp loop in the southeast quadrant and a southbound parallel off-ramp in the northwest quadrant.

- Atlantic Boulevard Interchange – The Pompano Service Plaza is just south of Atlantic Blvd. and FTE has recently constructed AET gantries. Additional improvements being considered include additional ramps to convert this existing interchange from partial access to full access. There is also an on-going study to increase the existing truck parking.

- Coconut Creek Parkway Interchange – Modifications under consideration at this interchange include the addition of a NB parallel off-ramp and SB on-ramp in the southeast and southwest quadrant, respectively, and realignment of the southbound off-ramp in the northwest quadrant. The most significant improvement under consideration is a crossing of the Broward County C-3 Canal between the interchange and NW 30th Avenue (Blount Road). This would require construction of pipes or a box culvert to maintain the existing canal hydraulics.

- Sample Road Interchange – The proposed improvements under consideration for this existing interchange include a slight realignment of Sample Road along with the potential removal of the existing loop ramp in the southwest quadrant and replacement with a parallel southbound on-ramp and off-ramp. What is being considered is very similar to what was previously presented to Broward County as part of the previous design that was shelved.

- FTE made it clear during the discussion that the proposed improvements presented as part of this meeting were only under consideration and that no final decisions had been made. More coordination is anticipated and the no-build option was always on the table.

Water Control District Stormwater Opportunities

- The SFWMD C-14 Basin along the Turnpike Mainline starts at SR 7 and extends to Sample Road. All discharge is into the SFWMD C-14 Canal which is just south of Atlantic Blvd. The area south of Atlantic Blvd. discharges to the north and ultimately into the SFWMD C-14 Canal. The northbound lanes discharge into an existing canal adjacent to the northbound lanes and are connected via pipe into the SFWMD C-14 Canal. The southbound lanes discharge to the west into the Fern Forest Nature Center. While there are existing stormwater management facilities within the interchange, FTE anticipates that a significant stormwater sharing opportunity may exist on the Fern Forest Nature Center.
- North of the C-14 Canal the major north south hydraulic conveyance is the Broward County C-3 Canal located east of the SR 91 northbound mainline. All stormwater runoff beginning at Sample Road discharges into the SFWMD C-14 Canal via the Broward County C-3 Canal or the existing canal/lake conveyance system located adjacent to the southbound lanes south of Coconut Creek Parkway.
- As mentioned previously a crossing of the Broward County C-3 Canal is under consideration with the potential improvements at the Coconut Creek Parkway interchange. The hydraulic connection from one side of the canal crossing to the other may be pipes or a box culvert. FTE understands that it will be necessary to maintain the existing conveyance through the C-3 Canal.
- The SFWMD Hillsboro Canal basin along the Turnpike Mainline begins north of Sample Road and all stormwater runoff between Sample Road and Wiles Road is ultimately conveyed into the SFWMD Hillsboro Canal.
- Tradewinds Park may be another opportunity for stormwater sharing. Tradewinds Park is located west of the SR 91 southbound lanes and stretches from Copens Road to Wiles Road. As part of the previous design, which was only taken to 60% and shelved, a stormwater sharing opportunity was proposed within the segment at Tradewinds Park located north of Sample Road. Stormwater treatment was provided in a shallowed dry swale adjacent to the southbound lanes and then stormwater was allowed to pop-off and discharge into existing wetlands located to the west. The design determined the volume of pop-off sent to the existing wetlands would provide wetland rehydration.
- A third option for stormwater sharing may exist on vacant parcels located on the east side of the Turnpike mainline south of Sample Road. FTE understands that part of this area may be landfill, and is requesting Broward County feedback.

Other Design Concerns

Representatives from Broward County expressed the following thoughts/concerns.

- Fern Forest Nature Center is always concerned about having enough water. Broward County will coordinate with Fern Forest Nature Center to take a closer look at what FTE is proposing (see attachment).
- The Ft. Lauderdale and the Pompano Beach Wellfields are also always looking for more water. Ft. Lauderdale Wellfield is recharged by the C-3 Canal. Broward County indicated that they could coordinate with the wellfield operators if necessary.
- The potential Broward County C-3 Canal crossing associated with proposed improvements at the Turnpike Coconut Creek Interchange is a significant concern for Broward County. The contributing drainage basin is large and stretches as far east as I-95. It is the only conveyance to the SFWMD C-14 Canal. Broward County will not allow the existing conveyance capacity to be reduced or otherwise impacted.

- The interchange at Sample Road is also a concern because Broward County sends a lot of water back and forth across SR91 R/W through a series of interconnected ponds and culverts.
- The canal parallel to the Turnpike north (C-3 Canal) and south of the C-14 Canal within Turnpike right-of-way are important conveyances for the county water management needs. While Turnpike constructed the canal, the county does perform maintenance and would like to continue coordination on maintenance access aspects in the future.
- FTE clarified that it wasn't necessary for Broward County to coordinate with the wellfield operators on behalf of FTE. FTE was working with SFWMD to plan a regional meeting with all stormwater stakeholders including the wellfield operators as well as the municipalities and Broward County.

Action Items

- Broward County will coordinate with Fern Forest Nature Center and review FTE improvements under consideration.
- FTE will continue to coordinate and schedule a regional meeting with Broward County and wellfield stakeholders to further discuss shared stormwater opportunities.

Attachments

- Agenda
- PowerPoint presentation
- Sign-in sheet

Florida Department of Transportation

RON DESANTIS
GOVERNOR

Florida's Turnpike Enterprise
P.O. Box 613069, Ocoee, FL 34761
407-532-3999

JARED W. PERDUE, P.E.
SECRETARY

PROJECT: **Turnpike Mainline Widening PD&E Study**
FPID#: 442212-1-22-01 From South of I-595 to Wiles Road MP 53 to MP 70
Broward County
Stormwater Stakeholders – Environmental Look Around Meeting No. 1

MEETING DATE: November 9th, 2021

MEETING TIME: 11:00 AM

LOCATION: Virtual Team Meeting

The following were in attendance:

Name	Organization	Phone #	E-mail
Annemarie Hammond	FTE Permits Coordinator	407-264-3293	annemarie.hammond@dot.state.fl.us
Erin Yao, PE	FTE Drainage	407-264-3479	erin.yao@dot.state.fl.us
Jazlyn Heywood, PE	FTE/Atkins PD&E Project Manager	407-264-3298	jazlyn.heywood@dot.state.fl.us
Kevin Stewart, PE	FTE/Atkins Drainage	407-264-3417	kevin.stewart@dot.state.fl.us
Fred Gaines, PWS	FTE/Atkins EMO	407-264-3689	fred.gaines@dot.state.fl.us
Rob Garrigues, PE	RS&H Drainage	813-289-2666	Robert.Garrigues@rsandh.com
Chris Dailey	RS&H Environmental	813-636-2722	chris.dailey@rsandh.com
Lisa Stone, PE	KHA PM	561-840-0826	lisa.stone@kimley-horn.com
Gin Ng, PE	KHA Engr Lead	561-840-0872	gin.ng@kimley-horn.com
Carl Archie, PE	Broward County Stormwater WCD 2,3,4 and Cocomar		carchie@broward.org
Vilma Melendez, PE	Broward County Water Management Division		vmelendez@broward.org
Susan Bodmann, PG	Broward County Director of Water Management		sbodmann@broward.org

Background

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- FTE clarified that it wasn't necessary for Broward County to coordinate with the wellfield operators on behalf of FTE. FTE was working with SFWMD to plan a regional meeting with all stormwater stakeholders including the wellfield operators as well as the municipalities and Broward County.

Action Items

- Broward County will coordinate with Fern Forest Nature Center and review FTE improvements under consideration.
- FTE will continue to coordinate and schedule a regional meeting with Broward County and wellfield stakeholders to further discuss shared stormwater opportunities.

Attachments

- Agenda
- PowerPoint presentation
- Sign-in sheet

Florida Department of Transportation

RON DESANTIS
GOVERNOR

Turkey Lake Service Plaza
Mile Post 263 | Bldg. #5315
P.O. Box 613069, Ocoee, Florida 34761

JARED W. PERDUE, P.E.
SECRETARY

Stormwater Stakeholders – OPWCD Environmental Look Around Follow Up Meeting

PROJECT: Turnpike Mainline Widening PD&E Study (FPID#: 442212-1-22-01)
From South of I-595 to Wiles Road MP 53 to MP 70
Broward County

MEETING DATE: February 1, 2022

MEETING TIME: 10:00 AM

LOCATION: Virtual Teams Meeting

The following were in attendance:

Name	Organization	Phone #	E-mail
Erin Yao, PE	FTE Drainage	40[illegible]3479	erin.yao@dot.state.fl.us
Annemarie Hammond	FTE Permits Coordi[illegible]	407-264-3293	annemarie.hammond@dot.state.fl.us
Jazlyn Heywood, PE	FTE/Atkins PD&E Project Manager	407-264-3298	jazlyn.heywood@dot.state.fl.us
Fred Gaines, PWS	FTE/Atkins EMC	407-264-3689	fred.gaines@dot.state.fl.us
Kevin Stewart, PE	FTE/Atkins Drainage	407-264-3417	kevin.stewart@dot.state.fl.us
Rob Garrigues, PE	RS&H Drainage	813-289-2666	robert.garrigues@rsandh.com
Chris Dailey	RS&H Environmental	813-636-2722	chris.dailey@rsandh.com
Lisa Stone, PE	KHA PM	561-840-0826	lisa.stone@kimley-horn.com
Gin Ng, PE	KHA [illegible]r Lead	561-840-0872	gin.ng@kimley-horn.com
Brett Butler, PE	Old Plant[illegible] Water Control District Superintendent	954-472-5596	bbutler@OPWCD.org

EY 3/3/23

Background

- This meeting is a follow up to the Stormwater Stakeholders Environmental Look Around Meeting that was held on November 16, 2021.
- The time allotted for the previous meeting expired before Mr. Brett Butler with OPWCD was able to share additional information and he requested this follow up meeting.
- The following bullets represent the notable discussion that occurred at the meeting.

OPWCD Shared Canal Discussion

- OPWCD indicated that between Broward Boulevard and the C-12 Canal, there were two ways that water flows away from FTE R/W. Either west within the existing canal adjacent to Palm Tree Road or north adjacent to FTE mainline then west adjacent to the C-12 Canal toward the existing pump station. OPWCD Pump Station No. 4 is located at the C-12 Canal about a mile west of Sunrise Blvd. interchange on the southeast corner of Sunrise Blvd. And NW 56th Ave. These lateral canals along with

the existing water body/canal on the west side of Turnpike mainline are a part of the interconnected canal system that connects to pump station No. 4. Because OPWCD believed that this two-way flow pattern was beneficial to their system, they were interested in better understanding the impact of the FTE improvements on the northern flow way of the canal system. PD&E staff indicated that there would be some westward encroachment north of Station 1475+00 (approximate location of Palm Tree Rd.) but the proposed horizontal alignment quickly shifted back to the east toward the existing alignment and that there was not encroachment beyond the canal width that already existed at the location of the former FAA beacon. FTE further explained that recent improvements associated with the Sunrise Blvd interchange included the construction of a toll gantry in the vicinity of the former FAA beacon, but the outside limits of the toll gantry did not reduce the canal width beyond the encroachment that already occurred because of the location of the FAA beacon.

- As far as maintenance of the northern portion of the canal adjacent to Turnpike mainline is concerned, OPWCD indicated that they currently provide mowing and weed control on the western bank but not into the water, and they wanted to know if there was some way to get a better understanding of the maintenance working relationship between OPWCD and FTE. Ultimately, if OPWCD is expected to perform additional maintenance, for example, in the form of aquatic weed control, they have no issues with this but would like to have more formal documentation regarding that expectation. FTE indicated that they would coordinate internally with maintenance to see what could be accomplished.
- FTE indicated that in the past, there had been discussion about piping the northern portion of the canal and asked if OPWCD be open to it if the existing hydraulics could be maintained. OPWCD indicated that they were open to it if the existing hydraulics could be maintained.
- OPWCD wanted to know if FTE would consider filling in the existing lateral canal adjacent to Palm Tree Road between FTE R/W and East Acre Drive as part of the proposed improvements. OPWCD indicated that they could possibly even provide some funding. FTE suggested that working outside FTE R/W is difficult, but they could certainly take the request to management on behalf of OPWCD. PD&E staff suggested that filling in a portion of the shared canal would allow the existing linear detention pond to shift along with the roadway alignment.
- OPWCD asked FTE to keep the City of Plantation in the loop on future meetings.

Data Request

- PD&E staff referenced the previous meeting and the discussion of any available canal system H&H modeling that might be available. Previously OPWCD indicated that they would look for the requested information, but it might not be useful. At this meeting OPWCD acknowledged that a very old hydrologic and hydraulic model prepared by Gee & Jenson existed. They indicated that they would look for the model and provide it if they thought it would be useful to FTE.
- FTE requested information on Pump Station No. 4 pumping curves. OPWCD indicated that the existing pumps were fixed speed with a pumping rate of 25,000 gallons/minute. OPWCD indicated that they would provide the pumping logs to FTE.

Action Items

- FTE will be set up a meeting with their internal maintenance department for the purpose of discussing future canal maintenance responsibilities.
- FTE will set up a meeting with management for the purpose of discussing the possibility of having FTE fill in the lateral canal adjacent to Palm Tree Road between FTE R/W and East Acre Drive as part of the proposed improvements.

Florida Department of Transportation

RON DESANTIS
GOVERNOR

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JARED W. PERDUE, P.E.
SECRETARY

Stormwater Stakeholders – Environmental Look Around Meeting No. 2

PROJECT: Turnpike Mainline Widening PD&E Study (FPID#: 442212-1-22-01)From South of I-595 to Wiles Road MP 53 to MP 70
Broward County

MEETING DATE: November 16, 2021

MEETING TIME: 9:00 AM

LOCATION: Virtual Team Meeting

The following were in attendance:

Name	Organization	Phone #	E-mail
Erin Yao, PE 3/3/23	FTE Drainage	407-26[illegible]3479	erin.yao@dot.state.fl.us
Annemarie Hammond	FTE Permits Coordinator	[illegible]264-3293	annemarie.hammond@dot.state.fl.us
Jazlyn Heywood, PE	FTE/Atkins PD&E Project Manager	407-264-3298	jazlyn.heywood@dot.state.fl.us
Fred Gaines, PWS	FTE/Atkins EMO	407-264-3689	fred.gaines@dot.state.fl.us
Kevin Stewart, PE	FTE/Atkins Drainage	407-264-3417	kevin.stewart@dot.state.fl.us
Rob Garrigues, PE	RS&H Drainage	813-289-2666	Robert.Garrigues@rsandh.com
Chris Dailey	RS&H Environmental	813-636-2722	chris.dailey@rsandh.com
Lisa Stone, PE	KHA PM	561-840-0826	lisa.stone@kimley-horn.com
Gin Ng, PE	KHA Engr Lead	561-840-0872	gin.ng@kimley-horn.com
Brett Butler, PE	Old Plantation Water Control District Superintendent	954-472-5596	bbutler@OPWCD.org
Pat Gibney, PE	Craven Thompson (Representing Tindall Hammock Irrigation and Soil Conservation District)	954-739-6400	pgibney@craventhompson.com
Martin Cala, PE	City of Lauderhill City Engineer	954-730-4224	jmcala@lauderhill-fl.gov

Background

- As part of the PD&E study, it is necessary to conduct an Environmental Look Around (ELA) within the corridor and identify shared stormwater opportunities between Florida's Turnpike Enterprise (FTE) and the adjacent stormwater stakeholders. The goal is to identify these opportunities during the PD&E Phase and well in advance of the Design Phase since they take time to develop and implement. The team understands that there is a significant need for stormwater within this area of Broward County and the primary focus of this meeting is to discuss corridor improvements under consideration and identify sharing opportunities within the jurisdiction of the Old Plantation Water Control District (OPWCD), Tindall Hammock Irrigation and Soil Conservation District (THISCD), City of Lauderhill and the City of Plantation. **[Post Meeting Note: Representatives from the City of Plantation were unable to attend the meeting]**

- It should be noted that all improvements discussed today are preliminary in nature and no decisions have been made. There is still a significant level of evaluation and coordination that remains to be completed.
- Public Information Meeting to discuss potential improvements identified during this PD&E study is scheduled for January 2022, but the PD&E process is not expected to wrap up until the end of 2022.
- This stormwater stakeholder meeting is the second of three meetings that will be similar in nature. The first meeting included Broward County and the northern water control districts WCD 2, 3, 4 and Cocomar. The third meeting will be a corridor wide meeting with Broward County, various municipalities, and wellfield operators. This last meeting will be similar to meetings that have been conducted by FTE for past improvements along the corridor.

Overall Project Information

- The overall project extends from just south of the I-595 interchange to Wiles Road, which is just south of the Sawgrass Expressway. The PD&E study is evaluating a 10-lane typical section including auxiliary lanes in each direction, modifications to six interchanges and two new potential interchanges.
- The focus area for today's meeting is from the southern end of the project and extends to north of Oakland Park Blvd.
- Within this focus area, interchange improvements are being considered at I-595 and Sunrise Boulevard and a potential new interchange at Oakland Park Boulevard.

Note: The following descriptions are based on PowerPoint figures shared at the meeting and do not necessarily conform to the verbal presentation given.

Potential Improvements

- The first segment starts at the southern end of the corridor and extends to Peters Road.
    - All Turnpike stormwater runoff from north of I-595 discharges into the North New River Canal via thetriangular lake located in the northwest quadrant.
    - Stormwater runoff south of I-595 generally discharges south into the C-11 Canal.
    - In addition to the mainline widening, the most impactful improvement under consideration is a separate ramp from Turnpike southbound to I-595.
    - The separate ramp will require the relocation of Reese Road.

- The next segment starts at Peters Road and extends to Sunrise Boulevard.
    - Stormwater runoff in this segment discharges west into the OPWCD Canal system and ultimately into the C-12 Canal.
    - Beyond the 10-lane widening, the proposed improvements under consideration include flatteningout the horizontal curves to allow a crowned typical section and eliminate the potential for hydroplaning.
    - As noted, flattening the curve between Broward Blvd. and Sunrise Blvd. will require encroachment into the OPWCD shared canal.

- The third segment starts at Sunrise Boulevard and extends to Oakland Park Boulevard.
    - Oakland Park Boulevard is the northern boundary of the C-12 Canal Basin.
    - Stormwater runoff discharges into the C-12 Canal via the City of Lauderhill Canal system Other than realignment of the existing ramps at the Sunrise interchange, this interchange

will remain mostly as it is today.

- Improvements under consideration include flattening out the southbound off-ramp in the northwest quadrant shifting the ramp bridge north and flattening out the northbound onramp in the northeast quadrant.
- Flattening the northbound on-ramp will impact the open canal segment between the Turnpike canal segments that were piped as part of previous projects.
- Stormwater piping beneath the ramp will be included in the PD&E study and the design to maintain conveyance in this area
- The City of Lauderhill had a question regarding the proposed typical section between Sunrise Boulevard and Oakland Park Boulevard. They were under the impression that the alignment would beshifted to the west away from the gas main and wanted to better understand why it was necessary toshift the alignment when the existing gas main was old and would likely need to be replaced in the future.
- The PD&E team explained that in this location the existing two gas mains were replaced with one gas main about 10 years ago. The relatively newer gas main was located adjacent to eastern FTE R/W, far enough away that the existing alignment did not need to shift, and the proposed typical section was a center widening.

- The final segment extends from Oakland Park Boulevard to NW 44th Street.
  - NW 44th Street is the northern boundary of the City of Lauderhill that is located adjacent to FTE R/W.
  - Stormwater in this segment discharges into the C-13 Canal, and the interchange improvements under consideration are significantly different than what is currently constructed today.
  - The PD&E team explained that the interchange would take advantage of the abandoned golf course. Oakland Park Boulevard would be realigned and replaced to accommodate the proposed mainline widening. The future potential interchange would be a diamond type that would connect to a T-intersection with Rock Island Road to the west. This interchange design would also require Rock Island Road to be realigned and connected back into Oakland Park Boulevard.
  - There would be a two phased signal between Rock Island Road and Oakland Park Blvd afforded by the grade-separated displaced left turn just north of Oakland Park and Rick Island intersection.
  - The interchange would also require replacement of the existing bridge over the C-13 Canal.
  - The City of Lauderhill wanted to know if thought had been given to reconnecting 55th Avenue straightto Rock Island Road and eliminating a traffic light. The PD&E team indicated that this option was considered but eliminated due to impacts to commercial properties and FPL transmission lines. They explained that the current concept plan does show improvements to the intersection with 55th Avenue that will improve the flow of traffic.
  - The City of Lauderhill wanted to know if the presented concept plan would be shown at the Public Information Meeting in January 2022. The PD&E team indicated that more public-friendly graphics would be shown and all information associated with the analysis would be available at the end of the PD&E study.
  - However, the PD&E team indicated that all ideas would be welcome at the Public Information Meeting.

Shared Stormwater Opportunities

- Tindall Hammock indicated that they accept a lot of FTE water today. Although only for conveyance, and they really did not have any additional needs or lands that can be shared. They also recommended that Central Broward Water Control District be included in these discussions moving forward.
- The City of Lauderhill indicated that they did not have the capacity to accept additional water from FTE and have engaged a consultant to evaluate their stormwater masterplan as they experience flooding during larger storm events. They expect to provide results of their analysis in approximately two months. FTE indicated that the original intent of the earlier designs was to demonstrate that the proposed improvements did not send more stormwater to the City of Lauderhill Canal system.
- FTE acknowledged that they have also experienced elevated peak stages during large storm events. But it was determined that this may have been due to a backwater affect from the City of Lauderhill Canal system that slowed down the flow of stormwater runoff through the FTE collection system.

Note: At this point, the meeting circled back to the FTE/OPWCD shared canal and Mr. Gibney and Mr. Calaexited the virtual meeting.

FTE/OPWCD Shared Canal Discussion

- The PD&E team described the existing linear extended detention system located adjacent to the FTE southbound mainline that discharged into the shared canal. After entering the shared canal, stormwater is conveyed due west via the existing OPWCD interior canal system or north and then west parallel to the C-12 Canal also within the existing OPWCD canal system.
- OPWCD indicated that they wanted to be clear on how stormwater flowed between FTE and the limits oftheir jurisdiction (Powers Road to Sunrise Boulevard). The PD&E team indicated that the northbound side of FTE mainline discharged north to the C-12 Canal and the southbound side of FTE mainline discharged into the C-12 from the OPWCD interior canal system via Pump Station No. 4.
- OPWCD concurred with the description of how stormwater runoff flows between FTE R/W and OPWCD and added that the existing canal within the interior canal system was located adjacent to Palm Tree Road.
- OPWCD requested confirmation that the proposed improvements would reduce the width of the shared canal along the entire length. The PD&E team indicated that flattening the horizontal curve between BrowardBoulevard and Sunrise Boulevard would reduce the width of the shared canal, but it would still be necessary to tie back into the existing alignment at Broward Boulevard and at Sunrise Boulevard. This would maintain the current canal width at the north end which was still wider than the historical pinch point at the location of the FAA beacon.
- After much discussion regarding the history of the shared canal and when portions of it originally changed ownership between OPWCD and FTE, OPWCD indicated that they wanted to help FTE achieve its goals and thought that the sharing of stormwater was beneficial. They did not want the existing connections between FTE and the OPWCD canal system severed since it provided multiple flow paths for their interior canal system.
- The PD&E team asked if there was any hydraulic modeling for the canal system available for review. OPWCD indicated that if there was, it was old and would not be useful.
- At this point in the discussion the meeting adjourned, and it was agreed that a second meeting

between FTE and OPWCD would be scheduled for a later date.

Action Items

- FTE will work with OPWCD to schedule a follow up meeting for further shared canal discussion. **[PostMeeting Note: A second meeting has been scheduled for December 10, 2021 and rescheduled to February 1, 2022.]**
- The City of Plantation will be invited to the third and final regional ELA meeting.

Attachments

- Agenda
- Sign-in sheet
- PowerPoint presentation

Florida Department of Transportation

RON DESANTIS
GOVERNOR

Turkey Lake Service Plaza
Mile Post 263 | Bldg. #5315
P.O. Box 613069, Ocoee, Florida 34761

JARED W. PERDUE, P.E.
SECRETARY

Stormwater Stakeholders – Environmental Look Around Meeting No. 3

PROJECT: Turnpike Mainline Widening PD&E Study (FPID#: 442212-1-22-01)From South of I-595 to Wiles Road MP 53 to MP 70
Broward County

MEETING DATE: May 3, 2022

MEETING TIME: 9:00 AM

LOCATION: Virtual Teams Meeting

The following were in attendance:

EWY 2/17/2023

Name	Organization	Phone #	E-mail
Erin Yao, PE	FTE Drainage	407-264-3479	erin.yao@dot.state.fl.us
Annemarie Hammond	FTE Environ. Permit Coordinator	407-264-3293	annemarie.hammond@dot.state.fl.us
Rax Jung, PhD, PE	FTE Development Engineer	407-264-3870	Rax.Jung@dot.state.fl.us
Philip Stein	FTE/Environmental	407-264-3022	Philip.Stein@dot.state.fl.us
Jazlyn Heywood, PE	FTE/Atkins PD&E Project Manager	407-264-3298	jazlyn.heywood@dot.state.fl.us
Kevin Stewart, PE	FTE/Atkins Drainage	407-264-3417	kevin.stewart@dot.state.fl.us
Douglas Zang, AICP	FTE/Atkins Environmental	407-264-3409	Douglas.Zang@dot.state.fl.us
Fred Gaines, PE	FTE/Atkins EMO	407-264-3689	fred.gaines@dot.state.fl.us
Carlos Adorisio, PE	Broward County Supervisor Engineering Unit	954-519-1206	CADORISIO@broward.org
Carl Archie, PE	Broward County/Wastewater Services, Engineering Unit Supervisor	954-765-4400	CARCHIE@broward.org
Susan Bodmann, PG	Broward County/Director of Water Management under Wastewater Services	954-831-3250	SBODMANN@broward.org
Linda Briggs-Thompson	Broward County/Parks Environmental Program Manager	954-357-8120	lbriggs@broward.org
Chris Deal	Broward County/Senior Parks Manager	954-357-8100	cdeal@broward.org
Martin Gross, PE	Broward County/Parks Planning Project Engineer	954-370-3810	MGROSS@broward.org
Mike Halupke	Broward County/Parks Project Manager	954-577-4637	MHALUPKE@broward.org
Eduardo Koenig	Broward County/Hazardous Materials and Compliance Program	954-519-1406	EKOENIG@broward.org

Name	Organization	Phone #	E-mail
Vilma Melendez, PE	Broward County/Wastewater Services	954-357-4967	VMelendez@broward.org
Gregory Mount, PhD	Broward County/Resilient Environment Department	954-519-0356	GMOUNT@broward.org
Johana Narvaez	Broward County/Surface Water Management Program		JNARVAEZ@broward.org
Alfred Reid, PE	Broward County/Hazardous Materials and Compliance Program	954-519-1432	AREID@broward.org
Rajendra Sishodia, PhD	Broward County/Water Resources Assessment Manager/Resilient Environment Department	954-519-1450	RSISHODIA@broward.org
Linda Sunderland	Broward County/Wetlands Mitigation and Aquatics Program	954-519-1483	LSUNDERLAND@broward.org
David Vanlandingham, PE	Broward County/Dire. Of Environment Permit Division in Resilient Environment Dept.	954-519-1	DVANLANDINGHAM@broward.org
Dan West	Broward County/Parks Director	954-[illegible]7-8106	[illegible]west@broward.org
Erik Westberg	Broward County/Parks Assistant Director	[illegible]54-357-68[illegible]7	EWESTBERG@broward.org
Ali Younes	Broward County/Hazardous Materials and Compliance Program	95[illegible]9-1486	AYOUNES@broward.org
Mike Zygnerski	Broward County/Wastewat[illegible] Services		MZYGNERSKI@broward.org
Talal Abi-Karam	City of Fort Lauderdale/Utility Director	954-828-5299	Tabi-Karam@fortlauderdale.gov
Miguel Arroyo	City of Fort La[illegible]uderdale/[illegible]Vater ar[illegible] Wastewater [illegible]eatmen[illegible]anager		Marroyo@fortlauderdale.gov
Garry Brandy	City of Fort Lau[illegible]ne/Distribution and C[illegible]n Ma[illegible]ger		Gbrandy@fortlauderdale.gov
Paul Brown	C[illegible]y of Fort La[illegible]derda[illegible]/Police [illegible]partment Of[illegible]er		PaulBrown@fortlauderdale.gov
Alan Dodd, PE	Ci[illegible]f Fort Lau[illegible]rdale/Director of Public[illegible]/orks	954-828-8000	Adodd@fortlauderdale.gov
Todd Hiteshew	City of F[illegible] Lauderdale/Environmental Compliance Manager	954-828-7807	Thiteshew@fortlauderdale.gov
Jason Walker	City of Fort Lauderdale/Distribution and Collection Supervisor	954-828-7684	Jwalker@fortlauderdale.gov
Martin Cala, PE	City of Lauderhill/ City Engineer	954-730-4224	jmcala@lauderhill-fl.gov
Pat Gibney, PE	Craven Thompson (Representing Tindall Hammock Irrigation and Soil Conservation District)	954-739-6400	pgibney@craventhompson.com
Shawn Tyler	Fern Crest Utilities/Director of Utilities	954-587-8833	styler@thiscd.org
Brett Butler, PE	Old Plantation Water Control District Superintendent	954-472-5596	bbutler@OPWCD.org
Jesse Markle, PE	SFWMD/Regulation Division	561-682-6274	jmarkle@sfwmd.gov
Nicholas Vitani, PG	SFWMD/Water Use Permitting Dewatering	561-682-2133	nvitani@sfwmd.gov

Name	Organization	Phone #	E-mail
Dustin Wood, PE	SFWMD/Engineering Section Leader and Regulation	561-686-8800	duwood@sfwmd.gov
Lisa Stone, PE	KHA PM	561-840-0826	Lisa.stone@kimley-horn.com
Gin Ng, PE	KHA Engr. Lead	561-840-0872	gin.ng@kimley-horn.com
Rob Garrigues, PE	RS&H Drainage	813-289-2666	Robert.Garrigues@rsandh.com
Chris Dailey	RS&H Environmental	813-636-2722	chris.dailey@rsandh.com

1. INTRODUCTIONS

Introductions were made and those in attendance are listed above. The Florida Department of Transportation (FDOT), Florida's Turnpike Enterprise (FTE) thanked all the attendees for participating and pointed out that the intent of the meeting was to discuss regional watershed issues and opportunities relative to the project during the Project Development and Environment (PD&E) phase opposed to waiting until the design and permitting phase. This will allow regional issues to be discussed and potential coordination to begin earlier in the process.

2. OVERALL PROJECT INFORMATION

- This PD&E study extends from south of I-595 to south of Wiles Road, approximately 17 miles. The focus of the study is the widening of the Turnpike mainline to 10-lanes. Additionally, six existing interchanges along the corridor are being evaluated for modifications and two new interchanges are under consideration. An alternatives meeting was held in January and the Public Hearing is expected later this year.

3. POTENTIAL IMPROVEMENTS

- The approach and purpose of the meeting was laid out by stating that the first part of the meeting would focus on the proposed improvements and the second part of the meeting would focus on participating stakeholders and attempting to identify potential shared stormwater opportunities.

- Project Begin to Peters Road
    - This segment of the corridor is within the SFWMD C-11 and North New River Basins which extends from the beginning of the project to Peters Road.
    - The Central Broward Water Control District (CBWCD) N-4 Canal (via Tindall Hammock Irrigation and Soil Conservation District – THISCD and Turnpike right of way) is the ultimate outfall for all stormwater runoff south of I-595 and the South Florida Water Management District (SFWMD) North New River Canal is the outfall for all stormwater runoff north of I-595.
    - The PD&E's I-595 interchange preferred alternative proposes to reduce the existing shoulders and some of the lane widths so that proposed improvements can be constructed within the existing R/W and without reconstructing the existing mainline bridge over the North New River Canal and the I-595 express lane flyover bridge.
    - A series of monitoring wells that appear to belong to Ferncrest Utilities are located just outside Turnpike R/W and just south of I-595 adjacent to the southbound lanes. These monitoring wells do not appear to be impacted as part of the proposed improvements but any insight regarding their significance would be helpful to the analysis.

- Peters Road to Oakland Park Boulevard.
    - This segment of the corridor is within the SFWMD C-12 Basin which extends from Peters

Road to Oakland Park Boulevard.
  - The Old Plantation Water Control District (OPWCD) Canal system is the outfall for all stormwater runoff south of SFWMD C-12 Canal and ultimately discharges into the SFWMD C-12 Canal just west of the Turnpike mainline.
  - The SFWMD C-12 Canal is the outfall for all stormwater runoff to the north between the SFWMD C-12 Canal and Oakland Park Blvd.
  - The mainline improvements include flattening out the curves between Peters Road and Broward Blvd. and between Broward Blvd. and Sunrise Blvd. This proposed modification will allow the use of a crowned typical section which will mitigate the potential for hydroplaning.
  - Just south of Broward Blvd. there is an existing 66" pipe which was constructed by FTE during the last mainline widening. This pipe is stubbed out of the existing collection system and capped. It was constructed at the request of the City of Ft. Lauderdale in anticipation of a future connection to the City of Ft. Lauderdale Peele-Dixie wellfield.
  - This is one of the shared stormwater opportunities that already exists and is available for use with these future improvements.
  - The modification for the preferred interchange alternative at Sunrise Boulevard is relatively minor and consists of shifting the southbound off-ramp and northbound on-ramp to the north. This will require reconstruction of the existing interchange bridge over the Turnpike mainline.

- Oakland Park Blvd. to SR 7
  - This segment of the corridor is within the SFWMD C-13 Basin and extends from Oakland Park Blvd. to SR 7.
  - The SFWMD C-13 Canal is located just north of Oakland Park Blvd. is the main stormwater outfall.
  - The proposed interchange at Oakland Park is one of the new interchanges being considered for this corridor. The preferred alternative would include the realignment of Rock Island Road and Oakland Park Blvd. and would require the replacement of the Turnpike mainline bridge over the SFWMD C-13 Canal. The Rock Island Road bridge over the SFWMD C-13 Canal would not require replacement.
  - The existing interchange at Commercial Blvd. is also under consideration for minor modifications to accommodate the Turnpike mainline widening resulting in minor shifts to the existing on and off ramps. The existing ramp bridge over the Turnpike will also be replaced.

- SR 7 to Sample Road.
  - This segment of the corridor is within the SFWMD C-14 Basin and extends from SR 7 to Sample Road.
  - The SFWMD C-14 Canal is located just north of the Pompano Beach Service Plaza is the main stormwater outfall for the area of the corridor located north and south of the C-14 Canal.
  - The proposed new interchange at Cypress Creek Road will mainly consist of the addition of a northbound on-ramp and a southbound off-ramp. All improvements associated with this proposed interchange are anticipated to stay within the existing Turnpike R/W.
  - The City of Ft. Lauderdale Prospect Wellfield is located adjacent to the interchange, and

there is documentation of water being pulled from the C-14 Canal into the existing lake located just to the southeast of the existing Turnpike stormwater management pond. The existing seasonal high water table elevation is much lower in this area due to the wellfield drawdown, and this may be a potential location for a shared stormwater opportunity.

- There are also proposed improvements at the Atlantic Blvd. Interchange which will generally stay within the existing Turnpike R/W.
- The Fern Forest Nature Center located adjacent to the Pompano Beach Service Plaza may also be a potential location for a shared stormwater opportunity.
- North of Atlantic Blvd. is Coconut Creek Parkway and the interchange modifications under consideration at this location include a realigned northbound on-ramp and off-ramp. The existing southbound off ramp is also under consideration for realignment.
- The proposed modifications at this interchange will also include a new connection to Blount Rd/NW 30th Avenue which will require the addition of pipes or a box culvert at the crossing of the Broward County C-3 Canal.

- Sample Road to Wiles Road
  - At the northern end of the C-14 basin is Sample Road. The proposed interchange improvements at this location will eliminate the loop ramp in the southwest quadrant and convert the interchange to a partial diamond. The access road to Tradewinds Park located west of Turnpike mainline will be realigned away from the Turnpike mainline.
  - The project between Sample Road and Wiles Road is part of the SFWMD Hillsboro Basin and the main outfall is north toward the SFWMD Hillsboro Canal.
  - Adjacent to the southbound mainline a joint use opportunity that was previously identified and has been coordinated with Broward County. This opportunity includes a linear pond located on property shared by Tradewinds Park and the Turnpike discharging to rehydrate wetlands within Tradewinds Park. It is anticipated that this opportunity will remain viable for these PD&E considered improvements.

4. POTENTIAL SHARED STORMWATER OPPORTUNITIES

- FTE started the discussion by stating that none of the proposed improvements presented previously were final. The information provided was still preliminary and only under consideration. The no-build option was always on the table for any segment of the entire corridor.
- FTE Consultant staff identified the areas between Peters Road and Broward Blvd. and between SR 7 and the Pompano Beach Service Plaza as being the project areas of greatest stormwater need.

Broward County Parks

- Broward County indicated that existing rehydration efforts at Fern Forest Nature Center are working and there currently are no opportunities for shared stormwater at that location.
- Broward County recognized that discussions regarding stormwater sharing at Tradewinds Park had occurred previously. However, since it had been several years and Tradewinds Park was under new management, they would like to revisit with FTE and include SFWMD in the coordination. They confirmed the general concept that was previously discussed would still be beneficial.
- Broward County reminded FTE that there were some Florida Recreation Development Assistance Program (FRDAP) grants that needed to be addressed to facilitate land swap so the proposed improvements within the park can proceed.

City of Ft. Lauderdale Peele-Dixie Wellfield

- Ft. Lauderdale was concerned about potential impacts to their pump station at Peele-Dixie Wellfield and asked for additional information.
- FTE indicated that mainline improvements under consideration between Peters Road and Broward Blvd. did not impact the wellfield based on current understanding of the wellfield limits.
- FTE and Consultant staff described twin 66-inch pipes that were constructed in the early 2000's adjacent to the northbound lanes between Broward Blvd. and the SFWMD C-12 Canal. The twin 66-inch pipes include weepholes to allow for groundwater recharge. The connection beneath Broward Blvd. was maintained and included a stub-out pipe just south of Broward Blvd. at the Peele-Dixie Wellfield. The intent was to maintain stormwater flow between the area south of Broward Blvd. and the SFWMD C-12 Canal, but also to provide the City of Ft. Lauderdale with future access to water from the SFWMD C-12 Canal for the Peele-Dixie Wellfield.
- FTE noted that unplugging the stub-out pipe and allowing stormwater to flow from FTE R/W, and from the SFWMD C-12 Canal into the Peel-Dixie Wellfield can only occur after proper coordination with the appropriate permitting agencies.

2020 Flooding Event Between Peters and Broward

- OPWCD asked if coordination had occurred with the City of Plantation. FTE indicated that the City of Plantation has been invited to this and other similar meetings, but they haven't been able to attend so coordination has not occurred as part of this process.
- FTE Consultant staff indicated there has been coordination with the City of Plantation during other aspects of the PD&E process and it was ongoing.
- OPWCD mentioned the storm event that occurred in November of 2020 and caused flooding in the neighborhoods around the golf course (Ft. Lauderdale Golf and Country Club). OPWCD wanted to know if the stub-out pipe could be converted into a flood relief connection to the SFWMD C-12 Canal for those types of extreme events. **[Post Meeting Note: Based on the identified dates of the flooding, the storm referenced by OPWCD was likely Tropical Storm Eta which moved across south Florida during the second week of November in 2020]**
- FTE indicated water does flow from the area south of Broward Blvd. to the north toward the SFWMD C-12 Canal. However, based on previous coordination with the City of Ft. Lauderdale, sometimes the water flows in the opposite direction, from the SFWMD C-12 Canal to the area south of Broward Blvd. FTE acknowledged that OPWCD's request to convert the existing stub-out pipe into a flood relief connection could certainly be considered if it improved system functionality.
- OPWCD indicated that the neighborhood north of Broward Blvd. also saw flooding during that storm event. That neighborhood has existing connections to the FTE system, but it was difficult for water to flow from the neighborhood to the 66-inch pipes and ultimately the SFWMD C-12 Canal due to the hydraulic grade line downstream. Historically, there may have been a pump station at the north end of Turnpike's borrow canal into the SFWMD C-12 Canal that was abandoned. OPWCD wanted to know if this pump station could be reestablished to assist the surrounding neighborhoods during severe storm events.
- FTE requested information related to the flooding and the abandoned pump station. OPWCD agreed and indicated they would circle back with FTE separately.

City of Ft. Lauderdale Prospect Wellfield

- FTE indicated that Cypress Creek Rd interchange improvements had no impacts on any of the existing wells based on current understanding of the wellfield limits.
- City of Ft. Lauderdale has a high-level concern at the SFWMD C-14 Canal because it is used as the

main aquifer recharge.
- FTE Consultant staff confirmed that there were no anticipated impacts to the current ability of water to flow from the C-14 Canal to the south.

Ferncrest Utilities Wellfield
- Ferncrest does not have any opportunities for stormwater sharing south of I-595.
- With respect to the monitoring wells adjacent to the I-595 interchange, Ferncrest Utilities suggested that coordination should occur with Broward County Environmental since they monitor those wells. They will send contact information to FTE.

City of Lauderhill Wellfield
- FTE Consultant staff wanted to know if there were any shared stormwater opportunities within the adjacent wellfield between Sunrise Blvd. and Oakland Park Blvd. **[Although not specifically indicated at this meeting, based on general discussion it is presumed that the City of Lauderhill is not aware of shared stormwater opportunities associated with their wellfield.]**
- City of Lauderhill noted that there has been recent flooding between Sunrise Blvd. and Oakland Park Blvd. They also indicated this was caused because offsite connections were severed when the Turnpike constructed the noise wall on the east side and west side of the mainline. They requested that this project look at restoring those connections.
- City of Lauderhill also noted that stormwater discharge at the Sunrise Blvd. Interchange is not into the SFWMD C-12 Canal but into the City of Lauderhill Canal system.
- City of Lauderhill suggested that a separate meeting to discuss these issues may be appropriate.

Broward County Water
- FTE asked if Broward Water had any ongoing projects that might provide shared stormwater opportunities.
- Broward County Water indicated there were no opportunities that they were aware of at this time.
- Broward County Water used to manage a recharge line on the east side of the Turnpike near the Ft. Lauderdale golf course. However at some point in time they were told that Peele-Dixie Wellfield was converted to a membrane plant (City of Ft. Lauderdale representatives confirmed this) and that recharging the wellfield from the SFWMD C-12 Canal was no longer necessary.
- Broward County Water concerned about the flows to the lakes at the Prospect Wellfield and wants to see if conveyance from the SFWMD C-14 Canal to the wellfield can be improved.
- Broward County Water has shared ownership of the canal on the east side of the Turnpike and periodically must access and dredge that system. They are concerned that will lose access to the canal on the Turnpike side and will have to find alternate means of access.
- Broward County Water and Wastewater department has a utility north of the wellfield. They are not sure if it will be impacted by the improvements under consideration and will have to coordinate with those departments regarding the type of utilities (water vs. wastewater) and the location.
- Broward County Water is also concerned about the area north of Atlantic. All stormwater runoff between Sample Road and Military Trail drains toward the Turnpike and they want to make sure that access for maintenance activities is maintained in the C-3 Canal.
- Broward County Water maintains a connection to the Turnpike R/W at Sample Road from the east near the baseball fields. Water drains from the east and is discharged to the west via Turnpike conveyance systems.
- Broward County Environmental indicated that there were multiple contamination sites along the

corridor and any dewatering at or within a quarter mile of the site would need to be coordinated with them. The also indicated that many of the golf courses along the corridor were contaminated and had restrictions regarding how they could be modified. They recommended researching the Broward County Contaminated Sites on the internet.

- Broward County Resiliency indicated that they had no issues at this time but wanted to continue coordination once the design was further along.

SFWMD

- SFWMD asked when the permit application for these improvements would be submitted. They suggested that depending on the timing and construction schedule, a conceptual permit for the entire corridor might be a better permitting approach than pursuing construction permits for each section.
- SFWMD wanted to make FTE aware of future legislation regarding water quality criteria. Workshops were slated to begin soon and that depending on when the legislation was passed, there may be different water quality criteria than what is currently required which could change the drainage design approach.

Action Items

- OPWCD will send documentation to FTE regarding neighborhood flooding adjacent to the northbound lanes between Broward Blvd. and Oakland Park Blvd. and provide information related to a historic pump station near the C-12 Canal that was previously abandoned.
- Ferncrest Utilities will send information to FTE regarding Broward Environmental so they can be included in future coordination meetings regarding the monitoring wells south of I-595.

Attachments

- Agenda
- PowerPoint presentation

PERMIT EXCERPTS

FOR-# 80157
Rev. 08/95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
PERMIT MODIFICATION NO. '06-02282-P
DATE ISSUED: AUGUST 11, 2004

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION
(SR 91 (FLORIDA TURNPIKE) WIDENING FROM STIRLING TO)
FLORIDA'S TURNPIKE ENTERPRISE. PO BOX 613069
OCOEE , FL 34761

ORIGINAL PERMIT ISSUED: SEPTEMBER 12, 1996

ORIGINAL PROJECT DESCRIPTION: AUTHORIZATION FOR CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM SERVING 10.65 ACRES OF ROADWAY.

APPROVED MODIFICATION : MODIFICATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE THE WIDENING OF THE FLORIDA TURNPIKE FROM NORTH OF STIRLING ROAD TO ATLANTIC BOULEVARD IN BROWARD COUNTY.

PROJECT LOCATION: BROWARD COUNTY , SECTION 12-14,23-26,35,36 TWP 49S RGE 41E
SECTION 1,2,11-14,23-26 TWP 50S RGE 41E

PERMIT DURATION: See Special Condition No.1. See attached Rule 40E-4.321, Florida Administrative Code.

This Permit Modification is approved pursuant to Application No.· 040120-19, dated January 16, 2004. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of any activities authorized by this Permit. This Permit is issued under the provisions of Chapter 373, Part IV Florida Statutes(F.S.), and the Operating Agreement Concerning Regulation Under Part IV, Chapter 373 F.S. between South Florida Water Management District and the Department of Environmental Protection. Issuance of this Permit constitutes certification of compliance with state water quality standards where necessary pursuant to Section 401, Public Law 92-500, 33 USC Section 1341, unless this Permit is issued pursuant to the net improvement provisions of Subsections 373.414(1)(b), F.S , or as otherwise stated herein.

This Permit Modification may be revoked, suspended, or modified at any time pursuant to the appropriate provisions of Chapter 373, F.S., and Sections 40E-4.351(1), (2), and (4), Florida Administrative Code (F.A.C.). This Permit Modification may be transferred pursuant to the appropriate provisions of Chapter 373, F.S., and Sections 40E-1.6107(1) and (2), and 40E-4.351(1), (2), and (4), F.A.C.

All specifications and special and limiting/general conditions attendant to the original Permit,unless specifically rescinded by this or previous modifications, remain in effect.

This Permit Modification shall be subject to the General Conditions set forth in Rule 40E-4.381, F.A.C., unless waived or modified by the Governing Board. The Application, and Environmental Resource Permit Staff Review Summary of the Application, including all conditions and all plans and specifications incorporated by reference, are a part of this Permit Modification. All activities authorized by this Permit Modification shall be implemented as set forth in the plans, specifications, and performance criteria as set forth and incorporated in the Environmental Resource Permit Staff Review Summary. Within 30 days after completion of construction of the permitting activity, the Permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual, pursuant to the appropriate provisions of Chapter 373, F.S. and Sections 40E-4.361 and 40E-4.381, F.A.C.

In the event the property is sold or otherwise conveyed, the Permittee will remain liable for compliance with this Permit until transfer is approved by the District pursuant to Rule 40E-1.6107, F.A.C.

SPECIAL AND GENERAL CONDITIONS ARE AS FOLLOWS:

SEE PAGES 2 - 3 OF 1 (15 SPECIAL CONDITIONS).
SEE PAGES 4 - 7 OF 1 (19 GENERAL CONDITIONS).

PERMIT MODIFICATION APPROVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT

FILED WITH THE CLERK OF THE
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ON ORIGINAL SIGNED BY:
ELIZABETH VEGUILLA
BY _____
DEPUTY CLERK

ORIGINAL SIGNED BY:
LORI OJALA
SECRETARY

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on August 12, 2009.

2. Operation of the surface water management system shall be the responsibility of PERMITTEE.

3. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

4. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

5. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

6. Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth, unless shown on the plans.

7. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

8. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

9. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All material removed shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

10. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

11. The authorization for construction of the surface water management system is issued pursuant to the water quality net improvement provisions referenced in Rule Section 40E-4.303(1), Florida Administrative Code; therefore, the state water quality certification is waived.

12. Reference is made to Exhibit No. 5 consisting of the plan set titled "Florida's Turnpike, State Road 91, From Griffing Road to North of Sunrise Boulevard". The plan set consisting of drainage maps, typical sections, details and cross-sections has been signed and sealed by a Florida Professional Engineer and is hereby incorporated in this permit by reference (please see permit file).

Reference is made to Exhibit No. 6 consisting of the plan set titled "Florida's

Turnpike, State Road 91, North of Sunrise Boulevard to Atlantic Boulevard". The plan set consisting of drainage maps, typical sections, details and cross-sections has been signed and sealed by a Florida Professional Engineer and is hereby incorporated in this permit by reference (please see permit file).

Reference is made to Exhibit No. 7 consisting of the Manatee protection measures and the Stormwater Pollution Prevention Plan and is hereby incorporated in this permit by reference (please see permit file).

13. Manatee exclusion grates shall be placed across the openings of existing or proposed culverts or pipes that are greater than eight inches but smaller than six feet in diameter in accordance with Exhibit No. 7. The installation of grates applies to any submerged or partially submerged pipes and culverts accessible to manatees during any tidal phase. Permittee shall keep all grates free and clear of debris.

14. The permittee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s).

The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.

Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exist from essential habitat.

All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

If manatee(s) are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.

Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to ~~the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north~~ Florida or Vero Beach (1-561-562-3909) in south Florida.

Temporary signs concerning manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the permittee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads Caution: Manatee Area will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 81/2" by 11" which reads Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported

immediately to the FWC Hotline at 1-888-404-FWCC. The U.S. Fish and Wildlife Service should also be contacted in Jacksonville (1-904-232-2580) for north Florida or in Vero Beach (1-561-562-3909) for south Florida.

15. Silt screens, hay bales, turbidity screens/barriers or other such sediment control measures shall be utilized during construction. The selected sediment control measures shall be installed prior to the commencement of construction in or adjacent to other surface waters in accordance with Exhibit No. 7 (referenced in the permit file) and shall remain in place until all adjacent construction is completed. All areas shall be stabilized and vegetated immediately after construction to prevent erosion into the wetlands and upland buffer zones.

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373, F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. Unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved

drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

40E-4.321 Duration of Permits

(1) Unless revoked or otherwise modified the duration of an environmental resource permit issued under this chapter or Chapter 40E-40, F.A.C. is as follows:

(a) For a conceptual approval, two years from the date of issuance or the date specified as a condition of the permit, unless within that period an application for an individual or standard general permit is filed for any portion of the project. If an application for an environmental resource permit is filed, then the conceptual approval remains valid until final action is taken on the environmental resource permit application. If the application is granted, then the conceptual approval is valid for an additional two years from the date of issuance of the permit. Conceptual approvals which have no individual or standard general environmental resource permit applications filed for a period of two years shall expire automatically at the end of the two year period.

(b) For a conceptual approval filed concurrently with a development of regional impact (DRI) application for development approval (ADA) and a local government comprehensive plan amendment, the duration of the conceptual approval shall be two years from whichever one of the following occurs at the latest date:

1. the effective date of the local government's comprehensive plan amendment.
2. the effective date of the local government development order.
3. the date on which the District issues the conceptual approval, or
4. the latest date of the resolution of any Chapter 120.57, F.S., administrative proceeding or other legal appeals.

(c) For an individual or standard general environmental resource permit, five years from the date of issuance or such greater amount of time as made a condition of the permit.

(d) For a noticed general permit issued pursuant to chapter 40-E-400, F.A.C., five years from the date the notice of intent to use the permit is provided to the District.

(2)(a) Unless prescribed by special permit condition, permits expire automatically according to the timeframes indicated in this rule. If application for extension is made in writing pursuant to subsection (3), the permit shall remain in full force and effect until:

1. the Governing Board takes action on an application for extension of an individual permit, or
2. staff takes action on an application for extension of a standard general permit.

(b) Installation of the project outfall structure shall not constitute a vesting of the permit.

(3) The permit extension shall be issued provided that a permittee files a written request with the District showing good cause prior to the expiration of the permit. For the purpose of this rule, good cause shall mean a set of extenuating circumstances outside of the control of the permittee. Requests for extensions, which shall include documentation of the extenuating circumstances and how they have delayed this project, will not be accepted more than 180 days prior to the expiration date.

(4) Substantial modifications to Conceptual Approvals will extend the duration of the Conceptual Approval for two years from the date of issuance of the modification. For the purposes of this section, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different water resource or environmental impacts which require a detailed review.

(5) Substantial modifications to individual or standard general environmental resource permits issued pursuant to a permit application extend the duration of the permit for three years from the date of issuance of the modification. Individual or standard general environmental resource permit modifications do not extend the duration of a conceptual approval.

(6) Permit modifications issued pursuant to subsection 40E-4.331(2)(b), F.A.C. (letter modifications) do not extend the duration of a permit.

(7) Failure to complete construction or alteration of the surface water management system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization in order to continue construction unless a permit extension is granted.

Specific authority 373.044, 373.113 F.S. Law implemented 373.413, 373.416, 373.419, 373.426 F.S. History—New 9-3-81. Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4/20/94, Amended 7-1-86, 4/20/94, 10-3-95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
PERMIT MODIFICATION NO. 06-02282-P
DATE ISSUED: MARCH 9, 2005

FORM #0157
Rev. 08/95

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION
(SR 91 SEGMENTS 1 AND 2 - WIDENING OF FLORIDA'S TUR)
FLORIDA'S TURNPIKE ENTERPRISE, PO BOX 613069
OCOEE , FL 34761

ORIGINAL PERMIT ISSUED: SEPTEMBER 12, 1996

ORIGINAL PROJECT DESCRIPTION: AUTHORIZATION FOR CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM SERVING 10.65 ACRES OF ROADWAY.

APPROVED MODIFICATION : MODIFICATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE THE WIDENING OF THE FLORIDA TURNPIKE FROM NORTH OF STIRLING ROAD TO ATLANTIC BOULEVARD IN BROWARD COUNTY.

PROJECT LOCATION: BROWARD COUNTY , SECTION 12-14,23-26,35,36 TWP 49S RGE 41E
SECTION 1,2,11-14,23-26 TWP 50S RGE 41E

PERMIT DURATION: See Special Condition No.1. See attached Rule 40E-4.321, Florida Administrative Code.

This Permit Modification is approved pursuant to Application No. 041015-7, dated October 14, 2004. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of any activities authorized by this Permit. This Permit is issued under the provisions of Chapter 373, Part IV Florida Statutes(F.S.), and the Operating Agreement Concerning Regulation Under Part IV, Chapter 373 F.S. between South Florida Water Management District and the Department of Environmental Protection. Issuance of this Permit constitutes certification of compliance with state water quality standards where necessary pursuant to Section 401, Public Law 92-500, 33 USC Section 1341, unless this Permit is issued pursuant to the net improvement provisions of Subsections 373.414(1)(b), F.S., or as otherwise stated herein.

This Permit Modification may be revoked, suspended, or modified at any time pursuant to the appropriate provisions of Chapter 373, F.S., and Sections 40E-4.351(1), (2), and (4), Florida Administrative Code (F.A.C.). This Permit Modification may be transferred pursuant to the appropriate provisions of Chapter 373, F.S., and Sections 40E-1.6107(1) and (2), and 40E-4.351(1), (2), and (4), F.A.C.

All specifications and special and limiting/general conditions attendant to the original Permit,unless specifically rescinded by this or previous modifications, remain in effect.

This Permit Modification shall be subject to the General Conditions set forth in Rule 40E-4.381, F.A.C., unless waived or modified by the Governing Board. The Application, and Environmental Resource Permit Staff Review Summary of the Application, including all conditions and all plans and specifications incorporated by reference a part of this Permit Modification. All activities authorized by this Permit Modification shall be implemented as set forth in plans, specifications, and performance criteria as set forth and incorporated in the Environmental Resource Permit Staff Review Summary. Within 30 days after completion of construction of the permitting activity, the Permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual, pursuant to the appropriate provisions of Chapter 373, F.S. and Sections 40E-4.361 and 40E-4.381, F.A.C.

In the event the property is sold or otherwise conveyed, the Permittee will remain liable for compliance with this Permit until transfer is approved by the District pursuant to Rule 40E-1.6107, F.A.C.

SPECIAL AND GENERAL CONDITIONS ARE AS FOLLOWS:

SEE PAGES 2 - 4 OF 1 (16 SPECIAL CONDITIONS).
SEE PAGES 5 - 7 OF 1 (19 GENERAL CONDITIONS).

PERMIT MODIFICATION APPROVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT

FILED WITH THE CLERK OF THE
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ON ORIGINAL SIGNED BY:
BY ELIZABETH VEGUILLA
DEPUTY CLERK

ORIGINAL SIGNED BY:
BY RACHEL RICH
DISTRICT CLERK

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on March 9, 2010.

2. Operation of the surface water management system shall be the responsibility of PERMITTEE.

3. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

4. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

5. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

6. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

7. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

8. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

9. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

10. All special conditions and exhibits previously stipulated by permit number 06-02282-P remain in effect unless otherwise revised and shall apply to this modification.

11. The authorization for construction of the surface water management system is issued pursuant to the water quality net improvement provisions referenced in Rule Section 40E-4.303(1), Florida Administrative Code; therefore, the state water quality certification is waived.

12. The permittee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s).

    The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of

1973, and the Florida Manatee Sanctuary Act.

Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exist from essential habitat.

All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

If manatee(s) are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.

Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) in south Florida.

Temporary signs concerning manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the permittee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads Caution: Manatee Area will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 81/2" by 11" which reads Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. The U.S. Fish and Wildlife Service should also be contacted in Jacksonville (1-904-232-2580) for north Florida or in Vero Beach (1-561-562-3909) for south Florida.

13. Manatee exclusion grates shall be placed across the openings of existing or proposed culverts or pipes that are greater than eight inches but smaller than eight feet in diameter in accordance with Exhibit No. 2. The installation of grates applies to any submerged or partially submerged pipes and culverts accessible to manatees during any tidal phase. Permittee shall keep all grates free and clear of debris.

14. Silt screens, hay bales, turbidity screens/barriers or other such sediment control measures shall be utilized during construction. The selected sediment control measures shall be installed prior to the commencement of construction in or adjacent to other surface waters in accordance with Exhibit No. 2 and shall remain in place until all adjacent construction is completed. All areas shall be stabilized and vegetated immediately after construction to prevent erosion into the wetlands and upland buffer zones.

15. The permittee shall retain the services of a professional archaeologist and perform an archeological survey as requested in the December 22, 2004 letter from the Department of State, Division of Historical Resources (Exhibit 3.1). If historical/archaeological artifacts are discovered, site alteration activities shall be postponed until such time as the Florida Department of State, Division of Historical Resources grants authorization to commence work.

16. Exhibits 2.1 through 2.9, attached, show the proposed work in the primary area of concern which is from Peters Road to Sunrise Boulevard (C-12 Canal). All other plans submitted as part of this permit modification are incorporated into the permit by reference and are located in the permit file.

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved

drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

40E-4.321 Duration of Permits

(1) Unless revoked or otherwise modified the duration of an environmental resource permit issued under this chapter or Chapter 40E-40, F.A.C. is as follows:

(a) For a conceptual approval, two years from the date of issuance or the date specified as a condition of the permit, unless within that period an application for an individual or standard general permit is filed for any portion of the project. If an application for an environmental resource permit is filed, then the conceptual approval remains valid until final action is taken on the environmental resource permit application. If the application is granted, then the conceptual approval is valid for an additional two years from the date of issuance of the permit. Conceptual approvals which have no individual or standard general environmental resource permit applications filed for a period of two years shall expire automatically at the end of the two year period.

(b) For a conceptual approval filed concurrently with a development of regional impact (DRI) application for development approval (ADA) and a local government comprehensive plan amendment, the duration of the conceptual approval shall be two years from whichever one of the following occurs at the latest date:

1. the effective date of the local government's comprehensive plan amendment.
2. the effective date of the local government development order.
3. the date on which the District issues the conceptual approval, or
4. the latest date of the resolution of any Chapter 120-57, F.A.C., administrative proceeding or other legal appeals.

(c) For an individual or standard general environmental resource permit, five years from the date of issuance or such amount of time as made a condition of the permit.

(d) For a noticed general permit issued pursuant to chapter 40-E-400, F.A.C., five years from the date the notice of intent to use the permit is provided to the District.

(2)(a) Unless prescribed by special permit condition, permits expire automatically according to the timeframes indicated in this rule. If application for extension is made in writing pursuant to subsection (3), the permit shall remain in full force and effect until:

1. the Governing Board takes action on an application for extension of an individual permit, or
2. staff takes action on an application for extension of a standard general permit.

(b) Installation of the project outfall structure shall not constitute a vesting of the permit.

(3) The permit extension shall be issued provided that a permittee files a written request with the District showing good cause prior to the expiration of the permit. For the purpose of this rule, good cause shall mean a set of extenuating circumstances outside of the control of the permittee. Requests for extensions, which shall include documentation of the extenuating circumstances and how they have delayed this project, will not be accepted more than 180 days prior to the expiration date.

(4) Substantial modifications to Conceptual Approvals will extend the duration of the Conceptual Approval for two years from the date of issuance of the modification. For the purposes of this section, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different water resource or environmental impacts which require a detailed review.

(5) Substantial modifications to individual or standard general environmental resource permits issued pursuant to a permit application extend the duration of the permit for three years from the date of issuance of the modification. Individual or standard general environmental resource permit modifications do not extend the duration of a conceptual approval.

(6) Permit modifications issued pursuant to subsection 40E-4.331(2)(b), F.A.C. (letter modifications) do not extend the duration of a permit.

(7) Failure to complete construction or alteration of the surface water management system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization in order to continue construction unless a permit extension is granted.

Specific authority 373.044, 373.113 F.S. Law Implemented 373.413, 373.416, 373.419, 373.426 F.S. History—New 9-3-81, Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4/20/94, Amended 7-1-86, 4/20/94, 10-3-95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Environmental Resource Regulation
Application No.: 071130-5

December 27, 2007

FLORIDA DEPARTMENT OF TRANSPORTATION
C/O P B S AND J
P O BOX 613069
OCOEE, FL 34761

Dear Permittee:

SUBJECT: PERMIT NO.: 06-02282-P
Project : WIDENING OF FLORIDA'S TURNPIKE FROM GRIFFIN RD SUNRISE BLVD
Location: Broward County, S32,33/T48S/R42E
S12-14, 23-26, 35, 36/T49S/R41E
S5-7/T49S/R42E
S1, 2, 11-14, 23-26/T50S/R41E

District staff has reviewed the information submitted November 30, 2007, for the propose substitution of the 10' x 4' concrete box culvert with a proposed double 36" aluminized steel pipe, as shown on the submitted plans dated September 14, 2007.

Based on that information, District staff has determined that the proposed activities are in compliance with the original environmental resource permit and appropriate provisions of FAC Rule 40E-4.331(2)(b). Therefore, these changes have been recorded in our files.

Please understand that your permit remains subject to the General Conditions and all other Special Conditions not modified and as originally issued.

Should you have any questions concerning this matter, please contact this office.

Sincerely,

Carlos A. DeRojas, P.E.
Sr Supv Engineer
Palm Beach Service Center

CD/cd

c: Broward County Engineer
P B S And J
The De Moya Group Inc

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filings by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office.** An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

Initiation of an Administrative Hearing
Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose to the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District's Governing Board takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation
The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW
Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

bc: Barbara J. Conmy
Carlos A. Derojas, P.E.
Environmental Resource Compliance – 4230
Permit File – 4240

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD GENERAL PERMIT NO. 06-02282-P
DATE ISSUED:December 22, 2010

Form #0941
08/95

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION
FLORIDA'S TURNPIKE ENTERPRISE
P O BOX 613069
OCOEE, FL 34761

PROJECT DESCRIPTION: Modification of a surface water management system to serve a 50.36 acre roadway project known as Sunrise Interchange Modifications.

PROJECT LOCATION: BROWARD COUNTY, SEC 2 TWP 50S RGE 41E
SEC 35 TWP 49S RGE 41E

PERMIT DURATION: See Special Condition No:1. See attached Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 091123-17, dated November 23, 2009. This action is taken pursuant to Rule 40E-1.603 and Chapter 40E-40 , Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and an Environmental Resource General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 19 General Conditions (See Pages : 2 - 4 of 6),
3. the attached 14 Special Conditions (See Pages : 5 - 6 of 6) and
4. the attached 3 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights, we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 22nd day of December, 2010, in accordance with Section 120.60(3), Florida Statutes.

BY: Anita R. Bain
Anita R. Bain
Director - Environmental Resource Permitting Division
Palm Beach Service Center

Certified mail number 7008 1830 0001 0508 4074

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit

GENERAL CONDITIONS

Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit

GENERAL CONDITIONS

application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on December 22, 2015.

2. Operation of the surface water management system shall be the responsibility of the permittee.

3. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

4. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

5. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

6. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

7. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

8. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

9. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

10. The permittee acknowledges, that pursuant to Rule 40E-4.101(2), F.A.C., a notice of Environmental Resource or Surface Water Management Permit may be recorded in the county public records. Pursuant to the specific language of the rule, this notice shall not be considered an encumbrance upon the property.

11. If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

12. Silt screens, hay bales, turbidity screens/barriers or other such sediment control measures shall be utilized during construction. The selected sediment control measures shall be installed prior to the commencement of construction in or adjacent to other surface waters in accordance with Exhibit 3.1 and shall remain in place until all adjacent construction is completed. All areas shall be stabilized and vegetated immediately after construction to prevent erosion into the surface waters.

13. Manatee exclusion grates shall be placed across the openings of existing or proposed culverts or pipes

SPECIAL CONDITIONS

that are greater than eight inches but smaller than eight feet in diameter in accordance with Exhibit 3.2. The installation of grates applies to any submerged or partially submerged pipes and culverts accessible to manatees during any tidal phase. Permittee shall keep all grates free and clear of debris.

14. Reference is made to Exhibit No. 2 by the Florida Department of Transportation, Project ID 406103-1-52-01, Sunrise Interchange Modifications. The plan set consisting of drainage plans and detail sheets. The drawings have been signed and sealed by James M. Zei P.E., of RS&H, Inc. on 2-15-06 and have been included in this permit by reference (please see permit file).

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
District Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406 (561) 686-8800 www.sfwmd.gov

Regulation
Application No.: 120208-1

March 6, 2012

F D O T, FLORIDA'S TURNPIKE ENTERPRISE
P.O. BOX 613069
OCOEE, FL 34761

Dear Permittee:

SUBJECT: PERMIT NO.: 06-02282-P
Project : SUNRISE INTERCHANGE MODIFICATION
Location: Broward County, S2/T50S/R41E
S35/T4[illegible]S/R41E

District staff has reviewed the information submitted February 2012, for the purposes of updating the permitted site plans due to modifications requested by the Right of Way Bureau (Permit No. MOD 469) which include: rip-rap bank protection within the C- Canal; the southern pier of the proposed southbound ramp bridge has been moved 20-feet to the south (see Exhibit 2). No additional impervious area has been added to the project. Drainage areas and flow patterns remain the same.

Based on that information, District staff has determined that the proposed activities are in compliance with the original environmental resource permit and appropriate provisions of FAC Rule 40E-4.331(2)(b). Therefore, these changes have been recorded in our files.

Please understand that your permit remains subject to the General Conditions and all other Special Conditions not modified and as originally issued.

Should you have any questions concerning this matter, please contact this office.

Sincerely,

Carlos A. de Rojas, P.E.
Section Leader - Swm
Regulation Division

CD/js

NOTICE OF RIGHTS

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RIGHT TO REQUEST ADMINISTRATIVE HEARING

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Filing Instructions

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- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office**. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

Initiation of an Administrative Hearing

Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD GENERAL PERMIT NO. 06-02282-P
DATE ISSUED:March 19, 2012

Form #0941
08/95

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION
FLORIDAS TURNPIKE ENTERPRISE
P O BOX 613069
OCOEE, FL 34761

PROJECT DESCRIPTION: Modification of a surface water management system to serve a 4.27-acre highway development known as Turnpike Sunrise Blvd Ramp Canal Improvements.

PROJECT LOCATION: BROWARD COUNTY, SEC 36 TWP 49S RGE 41E

PERMIT DURATION: See Special Condition No:1. Pursuant to Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 111222-14, dated December 22, 2011. This action is taken pursuant to Rule 40E-1.603 and Chapter 40E-40 , Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and an Environmental Resource General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 19 General Conditions (See Pages : 2 - 4 of 5),
3. the attached 12 Special Conditions (See Pages : 5 - 5 of 5) and
4. the attached 2 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights", we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 19th day of March, 2012, in accordance with Section 120.60(3), Florida Statutes.

BY: Anita R. Bain

Anita R. Bain
Bureau Chief - Environmental Resource Permitting
Regulation Division

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis using an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to

GENERAL CONDITIONS

be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities

GENERAL CONDITIONS

which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on March 19, 2017.

2. Operation of the surface water management system shall be the responsibility of the permittee.

3. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

4. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

5. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

6. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

7. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

8. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

9. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

10. The permittee acknowledges that, pursuant to Rule 40E-4.101(2), F.A.C., a notice of Environmental Resource or Surface Water Management Permit may be recorded in the county public records. Pursuant to the specific language of the rule, this notice shall not be considered an encumbrance upon the property.

11. If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

12. Silt screens and turbidity screens/barriers or other such sediment control measures shall be utilized during construction. The selected sediment control measures shall be installed prior to the commencement of construction in or adjacent to other surface waters in accordance with (Exhibit 2, page 18-19 of 19) and shall remain in place until all adjacent construction is completed. All areas shall be stabilized and vegetated immediately after construction to prevent erosion into the surface waters.

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filings by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office**. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

Initiation of an Administrative Hearing
Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation
The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW
Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE PERMIT NO. 06-02282-P
DATE ISSUED:December 20, 2016

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION
FLORIDA'S TURNPIKE ENTERPRISE
P O BOX 613069
OCOEE, FL 34761

PROJECT DESCRIPTION: Construction and operation of a 49.95 acre roadway project known as Florida's Turnpike Enterprise All Electronic Tolling Ph. 5A.

PROJECT LOCATION: BROWARD COUNTY, SEC 5 TWP 49S RGE 42E

PERMIT DURATION: See Special Condition No:1.

This is to notify you of the District's agency action for Permit Application No. 161115-5, dated November 15, 2016. This action is taken pursuant to the provisions of Chapter 373, Part IV, Florida Statues (F.S).

Based on the information provided, District rules have been adhered to and an Environmental Resource Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 18 General Conditions (See Pages : 2 - 4 of 5),
3. the attached 4 Special Conditions (See Pages : 5 - 5 of 5) and
4. the attached 2 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT this written notice has been mailed or electronically transmitted to the Permittee (and the persons listed in the attached distribution list) this 20th day of December, 2016, in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (my.sfwmd.gov/ePermitting).

BY:_____
Ricardo A. Valera, P.E.
Bureau Chief - Environmental Resource
Regulation Division

GENERAL CONDITIONS

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, Florida Administrative Code (F.A.C.). Any deviations that are not so authorized shall subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the "State of Florida Erosion and Sediment Control Designer and Reviewer Manual" (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the "Florida Stormwater Erosion and Sedimentation Control Inspector's Manual" (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice" indicating the expected start and completion dates. If available, an Agency website that fulfills this notification requirement may be used in lieu of the form.

5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
   a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex- "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit"[Form 62-330.310(3)]; or
   b. For all other activities "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
   c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:
   a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Applicant's Handbook Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
   b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that

GENERAL CONDITIONS

require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
b. Convey to the permittee or create in the permittee any interest in real property;
c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
a. Immediately if any previously submitted information is discovered to be inaccurate; and
b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other

GENERAL CONDITIONS

uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on December 20, 2021.

2. Operation and maintenance of the stormwater management system shall be the responsibility of PERMITTEE.

3. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

4. The following are exhibits to this permit. Exhibits noted as incorporated by reference are available on the District's ePermitting website (http://my.sfwmd.gov/ePermitting) under this application number.
Exhibit No. 1 Location Map
Exhibit No. 2 Plans

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the Board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.

- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.

Last Date For Agency Action: February 14, 2017

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Florida's Turnpike Enterprise All Electronic Tolling Ph. 5a

Permit No.: 06-02282-P

Application No.: 161115-5

Application Type: Environmental Resource (Construction/Operation Modification)

Location: Broward County, S5/T49S/R42E

Permittee : Florida Department Of Transportation

Operating Entity : Permittee

Project Area: 49.95 acres

Permit Area: 49.95 acres

Project Land Use: Highway

Drainage Basin: C-13 WEST

Drainage Basin: C-14

Receiving Body: Existing system

Special Drainage District: NA

Conservation Easement To District : No

Sovereign Submerged Lands: No

PROJECT SUMMARY:

This Environmental Resource Permit authorizes construction and operation of a stormwater management system serving a 49.95 acre roadway project known as Florida's Turnpike Enterprise All Electronic Tolling (AET) Ph. 5A.

This project includes the replacement of the existing toll collection booths at Comercial Boulevard with new AET facilities, the removal of the Cypress Creek Toll Plaza and replacement with new AET facilities adjacent to the Pompano Beach Service Plaza, and the construction of a new 3.07 acre stormwater pond within the area south of the existing Pompano Beach Service Plaza. The project includes the reallignment and reconfiguration of sections of the existing roadway to allow for the AET facilities. The project stormwater management system modifications include filling of a 0.44 acre wet pond, construcion of a 3.07 acre dry detention pond and other minor stormwater management system reconfigurations.

Issuance of this permit constitutes certification of compliance with state water quality standards in accordance with Rule 62-330.062 Florida Administrative Code (F.A.C.).

PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The project is a section of the Florida's Turnpike and includes areas at Commercial Boulevard, the Cypress Creek Toll Plaza and the Pompano Beach Service Plaza, in Broward County. Refer to Exhibit 1 for a location map.

Two existing storm water management ponds will be filled or partially filled for this project. There are no wetlands located within the project area or affected by this project.

WATER QUANTITY :

Discharge Rate :

Post-development discharge will not be increased from existing conditions.

WATER QUALITY :

Water quality treatment will be provided in dry detention areas. The project also includes implementation of a Construction Pollution Prevention Plan/ Turbidity and Erosion Control Plan (Exhibit 2) as additional reasonable assurance of compliance with water quality criteria during construction and operation.

CERTIFICATION, OPERATION, AND MAINTENANCE:

Pursuant to Chapter 62-330.310 Florida Administrative Code (F.A.C.), Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

For projects permitted with an operating entity that is different from the permittee, it should be noted that until the construction completion certification is accepted by the District and the permit is transferred to an acceptable operating entity pursuant to Sections 12.1-12.3 of the Applicant's Handbook Volume I and Section 62-330.310, F.A.C., the permittee is liable for operation and maintenance in compliance with the terms and conditions of this permit.

In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all stormwater management systems and works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity.

The efficiency of stormwater management systems, dams, impoundments, and most other project components will decrease over time without periodic maintenance. The operation and maintenance entity must perform periodic inspections to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of projects that may endanger public health, safety, or welfare, or the water resources. If deficiencies are found, the operation and maintenance entity will be responsible for correcting the deficiencies in a timely manner to prevent compromises to flood protection and water quality. See Section 12.4 of Applicant's Handbook Volume I for Minimum Operation and Maintenance Standards.

RELATED CONCERNS:

Water Use Permit Status:

The applicant has indicated that dewatering is not required for construction of this project. This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation.

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Right-Of-Way Permit Status:

A District Right-of-Way Permit is not required for this project.

Historical/Archeological Resources:

The District has received correspondence from the Florida Department of State, Division of Historical Resources indicating that no significant archaeological or historical resources are recorded in the project area and the project is therefore unlikely to have an effect upon any such properties.

DEO/CZM Consistency Review:

The issuance of this permit constitutes a finding of consistency with the Florida Coastal Management Program.

Third Party Interest:

No third party has contacted the District with concerns about this application.

Enforcement:

There has been no enforcement activity associated with this application.

STAFF REVIEW:

DIVISION APPROVAL:

NATURAL RESOURCE MANAGEMENT:

Barbara J. Conmy

DATE: 20 Dec 2016

SURFACE WATER MANAGEMENT:

Carlos A. de Rojas, P.E.

DATE: 20-Dec-2016

South Florida Water Management District
Post Office Box V 3301 Gun Club Road
West Palm Beach, Florida 33402
Telephone (305) 686-8800
Florida WATS Line 1-800-432-2045

drawing frt. office Loretta

John R. Maloy, Executive Director

Q 14-Item 38

IN REPLY REFER TO: GP 82-196

October 13, 1982

General Permit Broward

Ms. Joyce P. Howland, Permit Coordinator
Florida Department of Transportation
780 S.W. 24th Street
Fort Lauderdale, FL 33315

Re: General Permit No.: 82-196 (State Project No. 97860-3366)
Permittee: Florida Dept. of Transportation
Project: Sample Road Interchange at Florida's Turnpike
County: Broward County, Section 16,17,20,21, Township 48S, Range 42E

Dear Ms. Howland:

This letter is to acknowledge receipt of your Intent to Construct Works pursuant to Rule 40E-40, Florida Administrative Code.

Based on the information provided, District rules have been adhered to and a General Permit is in effect for this project.

Sincerely,

Charles A. Hall

Charles A. Hall, P.E., Director
Water Management Division
Resource Control Department

CAH/ju

bcc: Dept. of Environmental Regulation
Broward County Water Management Division
Inspection
Beth Ryan
Alan Leavens

GP 82-196

Draft/subject to change

NOTICE OF INTENT TO CONSTRUCT
*** WORKS PURSUANT TO GENERAL PERMIT ***
(Rule 40E-40)

SUBMITTED TO: Governing Board of
South Florida Water Management District
Post Office Box "V"
West Palm Beach, Florida 33402

1. NAME & ADDRESS OF PERMITTEE: Florida Department of Transportation
780 Southwest 24 Street, Fort Lauderdale, Florida 33315

2. NAME OF THE PROPOSED PROJECT: Turnpike/Sample Road Interchange

3. LOCATION OF THE PROJECT (include sketch): Sections 16, 17, 20, 21
Township 48 South, Range 42 East, Broward County, Florida

4. BRIEF DESCRIPTION OF THE WORKS TO BE CONSTRUCTED OR ALTERED:
Interchange at Sample Road will be constructed.

(Add extra sheet if necessary)

5. BRIEF STATEMENT OF FACTS WHICH SHOW WHY THE PROPOSED WORKS QUALIFY FOR A GENERAL PERMIT: Drainage will be by sheetflow or discharge into borrow pits or existing borrow ditches along the Turnpike.

(Add extra sheet if necessary)

6. DATE CONSTRUCTION OR ALTERATION IS EXPECTED TO COMMENCE:
Spring 1983

I HEREBY CERTIFY THAT ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS HAVE BEEN RECEIVED.

Permittee's Name (type or print) Florida Department of Transportation

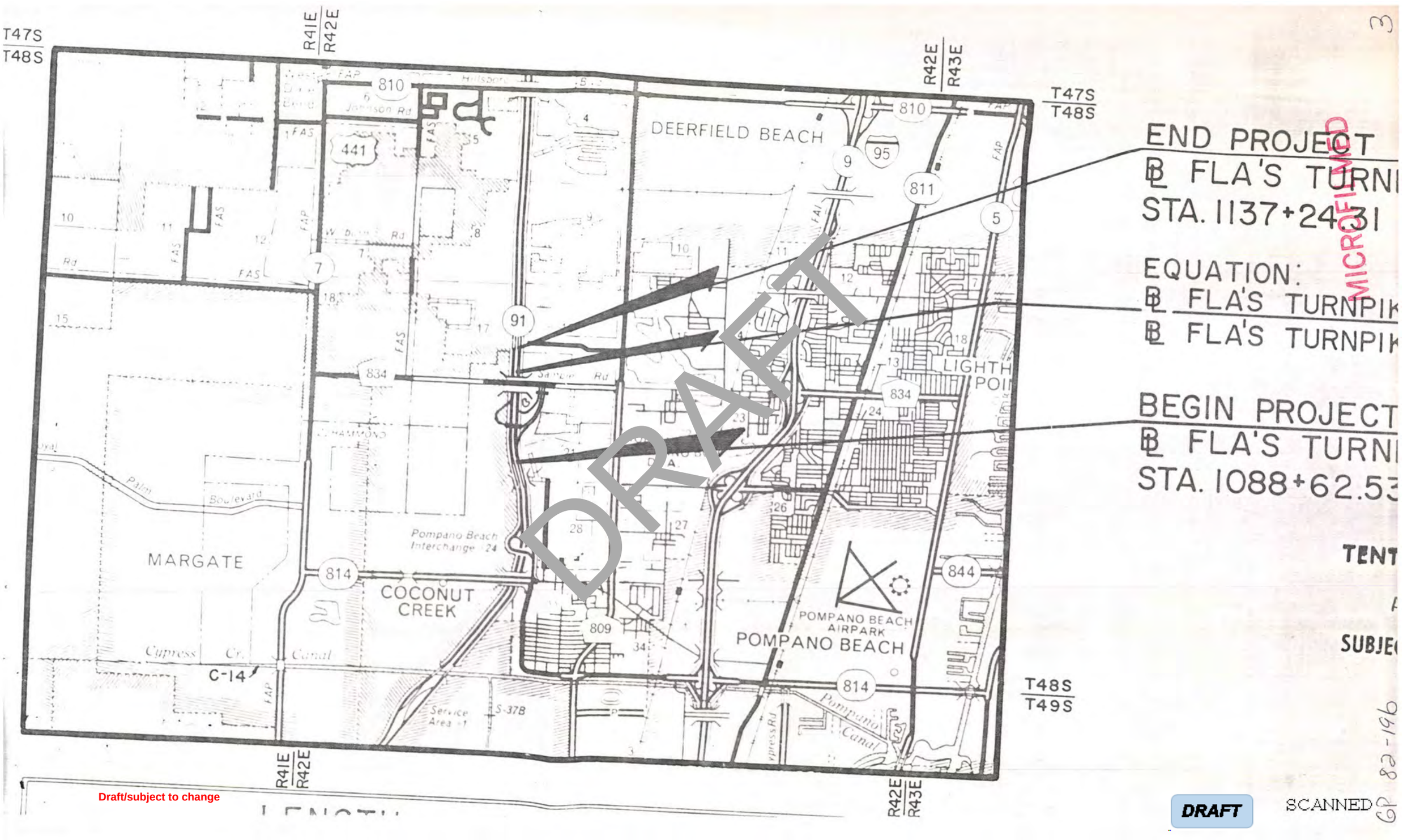
Signature Joyce P. Howland Date Sept. 13, 1982

Joyce P. Howland
District Environmental
Permit Coordinator

GENERAL PERMIT 82-196
NOTICE OF INTENT REC'D 9-15-82
REVIEWED BY Laurence
APPROVED BY A Hall
APPROVAL LTR. SENT 10/13/82

FORM 19
AUG 1977 Draft/subject to change

GP 82-196


T47S
T48S
R41E
R42E
R42E
R43E
T47S
T48S
END PROJECT
℄ FLA'S TURNI
STA. 1137+24.31
EQUATION:
℄ FLA'S TURNPIK
℄ FLA'S TURNPIK
BEGIN PROJECT
℄ FLA'S TURNI
STA. 1088+62.53
DEERFIELD BEACH
MARGATE
COCONUT CREEK
POMPANO BEACH
POMPANO BEACH AIRPARK
Pompano Beach Interchange
Cypress Cr. Canal
C-14
Palm Boulevard
Hillsboro
Johnson Rd
Sample Rd
Service Area #1
S-37B
Pompano Canal
T48S
T49S
R41E
R42E
R42E
R43E
DRAFT
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DRAFT
SCANNED
MICROFILMED
3
82-196

Florida Department of Transportation

BOB GRAHAM
GOVERNOR

PAUL N. PAPPAS
SECRETARY

780 Southwest 24 Street
Fort Lauderdale, Florida 33315-2696
Telephone: (305) 524-8621

September 13, 1982

RECEIVED
SEP 15 1982
RESOURCE CONTROL DEPARTMENT

Mr. Charles A. Hall
South Florida Water
Management District
3301 Gun Club Road
Post Office Box V
West Palm Beach, Florida 33402

Dear Mr. Hall:

Re: State Project No. 97860-3366, Sample Road Interchange at Florida's Turnpike, Broward County, B.I. No. 451540

The Florida Department of Transportation proposes to construct an interchange on Florida's Turnpike at Sample Road.

I am enclosing an application form pursuant to Rule 40E-40 along with drainage calculations and plans. Drainage design incorporates sheetflow and retention in borrow lakes and ditches, which qualifies this project for a General Highway Permit.

If you have any questions regarding this project, please contact this office.

Sincerely,

Joyce P. Howland
District Environmental
Permit Coordinator

JPH:cq

Enclosures

cc: Mr. Chuck Allen, w/enclosure
Mr. Jim Lowry, w/enclosure
Mr. Ron Smith, w/enclosure

Draft/subject to change

GP 82-196

Florida Department of Transportation

BOB GRAHAM
GOVERNOR

PAUL N. PAPPAS
SECRETARY

780 Southwest 24 Street
Fort Lauderdale, Florida 33315-2696
Telephone: (305) 524-8621

January 30, 1985

Mr. Charles Pemble
South Florida Water Management District
P.O. Box V
West Palm Beach, Florida 33402

Dear Mr. Pemble:

Subject: Florida's Turnpike, Sample Road Interchange
W.P.I. Number 4151540
State Project Number 97860-
Broward County

Construction of this project authorized by Permit Number GP 82-196 was completed December 18, 1984.

Please update your records accordingly and if you have any questions, please contact me at Sunco 421-1

Sincerely,

Joyce P. Howland
District Environmental
Permit Coordinator

JPH:md

cc: Mr. Chuck Allen
Mr. Bob Bourdon

GP82-196

File

QUAD 14&6
ITEM 110 &
POSTED

South Florida Water Management District

P.O. Box 24680 • 3301 Gun Club Road • West Palm Beach, FL 33416-4680 • (407) 686-8800 • FL WATS 1-800-432-2045

Regulation Department
Application No.: 890327-18

December 26, 1989

Florida Department of Transportation
Kunde, Sprecher, Yaskin and Associates
3320 N.W. 53rd Street, Suite 202
Fort Lauderdale, Florida 33309

Dear Sir or Madam:

Subject: Notice of Intent to Construct Works
Modification to Highway Permit No: 06-01034-S
Permittee: Florida Department of Transportation
Project : Turnpike Widening from C-14 to Sample Road
Location : Broward County, S[illegible]/T[illegible]S/R42E

This letter is to notify you of the District's agency action concerning your request of March 27, 1988, to modify the above referenced permit. This action is taken pursuant to Rule 40E-4.606 and Chapter 40E-40, Florida Administrative Code.

Based on the information provided, District rules have been adhered to and a modification to the above referenced Highway Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing, and

2. the attached 14 Special Conditions.

Should you object to these Conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review to the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the addressee (and the persons listed in the attached distribution list) no later than 5:00 P.M., this 26, day of December, 1989, in accordance with Section 120.60(3), F.S.

Sincerely,

Anthony M. Waterhouse, P.E.
Assistant Director
South Florida Water Management District

AMW/kw
CERTIFIED MAIL NO. P 297 879 548
Enclosures

FORM 0537
10/87

South Florida Water Management District
GENERAL PERMIT
NOTICE OF RIGHTS

This Notice of Rights is intended to inform the recipient of the administrative and judicial review which may be available as mandated by section 120.60(3), Florida Statutes. Be advised that although this notice is intended to be comprehensive, the review procedures set forth herein have been the subject of judicial construction and interpretation which may affect the administrative of judicial review available. Recipients are therefore advised to become familiar with Chapters 120 and 373, Florida Statutes, and the judicial interpretation of the provisions of these chapters.

1. If a substantially affected person objects to the staff's recommendation, that person has the right to request an administrative hearing on the proposed agency action. The substantially affected person may request either a formal or an informal hearing, as set forth below. Failure to comply with the prescribed time periods shall constitute a waiver of the right to a hearing.

2. If a substantially affected person believes a genuine issue of material fact is in dispute, that person may request a formal hearing pursuant to section 120.57(1), Florida Statutes, by filing a petition not later than:
   a. IF NOTICE OF THE APPLICATION WAS PUBLISHED BY THE APPLICANT, within fourteen (14) days after mailing of the proposed agency action or
   b. IF NOTICE OF THE APPLICATION WAS NOT PUBLISHED, within fourteen days after receipt of actual notice.

   The request for a section 120.57(1), F.S., formal hearing must comply with the requirements of Rule 40E-1.521, Florida Administrative Code, a copy of which is attached. Petitions are deemed filed upon receipt by the District. Failure to substantially comply with the provisions of Rule 40E-1.521, Florida Administrative Code, shall constitute a waiver of the right to a 120.57(1) hearing. If a petition for administrative hearing is not timely filed, the staff's proposed agency will automatically mature into final agency action.

3. If a substantially affected person believes that no issues of material fact are in dispute, that person may request an informal hearing pursuant to section 120.57(2), F.S., by filing a petition for hearing not later than:
   a. IF NOTICE OF THE APPLICATION WAS PUBLISHED BY THE APPLICANT, within fourteen (14) days after mailing of the proposed agency action or
   b. IF NOTICE OF THE APPLICATION WAS NOT PUBLISHED, within fourteen days after receipt of actual notice.

   A request for informal hearing shall be considered as a waiver of the right to request a formal section 120.57(1), F.S., hearing. A request for a section 120.57(1), F.S., formal hearing not in substantial compliance with the provisions of rule 40E-1.521, F.A.C., may be considered by the District as a request for informal hearing. If a petition for administrative hearing is not timely filed, the staff's proposed agency action will automatically mature into final agency action.

4. Pursuant to section 373.114, Florida Statutes, a party to the proceeding below may seek review of a Final Order rendered on the permit application before the Land and Water Adjudicatory Commission, as provided therein. Review under this section is initiated by filing a request for review with the Land and Water Adjudicatory Commission and serving a copy on the Department of Environmental Regulation and any person named in the Order within 20 days after rendering of the District's Order. However, when the order to be reviewed has statewide or regional significance, as determined by the Land and Water Adjudicatory Commission within 20 days after receipt of a request for review, the commission may accept a request for review from any affected person within 30 days after the rendering of the order. Review under section 373.114, Florida Statutes, is limited solely to a determination of consistency with the provisions and purposes of Chapter 373, Florida Statutes. This review is appellate in nature and limited to the record below.

5. A party who is adversely affected by final agency action on the permit application is entitled to judicial review in the District Court of Appeal pursuant to section 120.68, Florida Statutes, as provided therein. Review under section 120.68, Florida Statutes in the District Court of Appeal is initiated by filing a petition in the appropriate District Court of Appeal in accordance with Florida rule of appellate Procedure 9.110. The Notice of Appeal must be filed within 30 days of the final agency action.

6. Section 373.617(2), Florida Statutes, provides:

   > Any person substantially affected by a final action of any agency with respect to a permit may seek review within 90 days of the rendering of such decision and request monetary damages and other relief in the circuit court in the judicial circuit in which the affected property is located; however, circuit court review shall be confined solely to determining whether final agency action is an unreasonable exercise of the state's police power constituting a taking without just compensation. Review of final agency action for the purpose of determining whether the action is in accordance with existing statutes or rules and based on component substantial evidence shall proceed in accordance with Chapter 120.

7. Please be advised that exhaustion of administrative remedies is generally a prerequisite to appeal to the District Court of Appeal or the seeking of Circuit Court review of final agency action by the District on the permit application. There are, however, exceptions to the exhaustion requirement. The applicant is advised to consult the case law as to the requirements of exhaustion exceptions.

SPECIAL CONDITIONS

1. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF FLORIDA DEPARTMENT OF TRANSPORTATION.

2. WATER QUALITY DATA FOR THE WATER DISCHARGED FROM THE PERMITTEE'S PROPERTY OR INTO SURFACE WATERS OR GROUNDWATERS OF THE STATE SHALL BE SUBMITTED TO THE DISTRICT AS REQUIRED. PARAMETERS TO BE MONITORED MAY INCLUDE THOSE LISTED IN CHAPTER 17-3. IF WATER QUALITY DATA IS REQUIRED, THE PERMITTEE SHALL PROVIDE DATA AS REQUIRED ON VOLUMES OF WATER DISCHARGED, INCLUDING TOTAL VOLUME DISCHARGED DURING THE DAYS OF SAMPLING AND TOTAL MONTHLY DISCHARGES FROM THE PROPERTY OR INTO SURFACE WATERS OR GROUNDWATERS OF THE STATE.

3. LIMITING CONDITIONS OF RULE 40E-4.381 (SURFACE WATER MANAGEMENT) ARE WAIVED UNLESS OTHERWISE PROVIDED HEREIN.

4. FACILITIES OTHER THAN THOSE STATED HEREIN SHALL NOT BE CONSTRUCTED WITHOUT AN APPROVED MODIFICATION OF THIS PERMIT.

5. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION, SHOALING OR WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.

6. THE PERMITTEE SHALL PROSECUTE THE WORK AUTHORIZED IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACT OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES, AND WATER QUALITY. THE PERMITTEE SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES, TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATER.

7. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE OR USE OF ANY FACILITY AUTHORIZED BY THE PERMIT.

8. THIS PERMIT IS ISSUED BASED ON THE APPLICANT'S SUBMITTED INFORMATION WHICH REASONABLY DEMONSTRATES THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS WILL NOT BE CAUSED BY THE COMPLETED PERMIT ACTIVITY. IT IS ALSO THE RESPONSIBILITY OF THE PERMITTEE TO INSURE THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS DO NOT OCCUR DURING CONSTRUCTION.

9. OFF-SITE DISCHARGES DURING CONSTRUCTION AND DEVELOPMENT SHALL BE MADE ONLY THROUGH THE FACILITIES AUTHORIZED BY THIS PERMIT. WATER DISCHARGED FROM THE PROJECT SHALL BE THROUGH STRUCTURES HAVING A MECHANISM SUITABLE FOR REGULATING UPSTREAM WATER STAGES. STAGES MAY BE SUBJECT TO OPERATING SCHEDULES SATISFACTORY TO THE DISTRICT.

890327-18

SPECIAL CONDITIONS CONTINUED

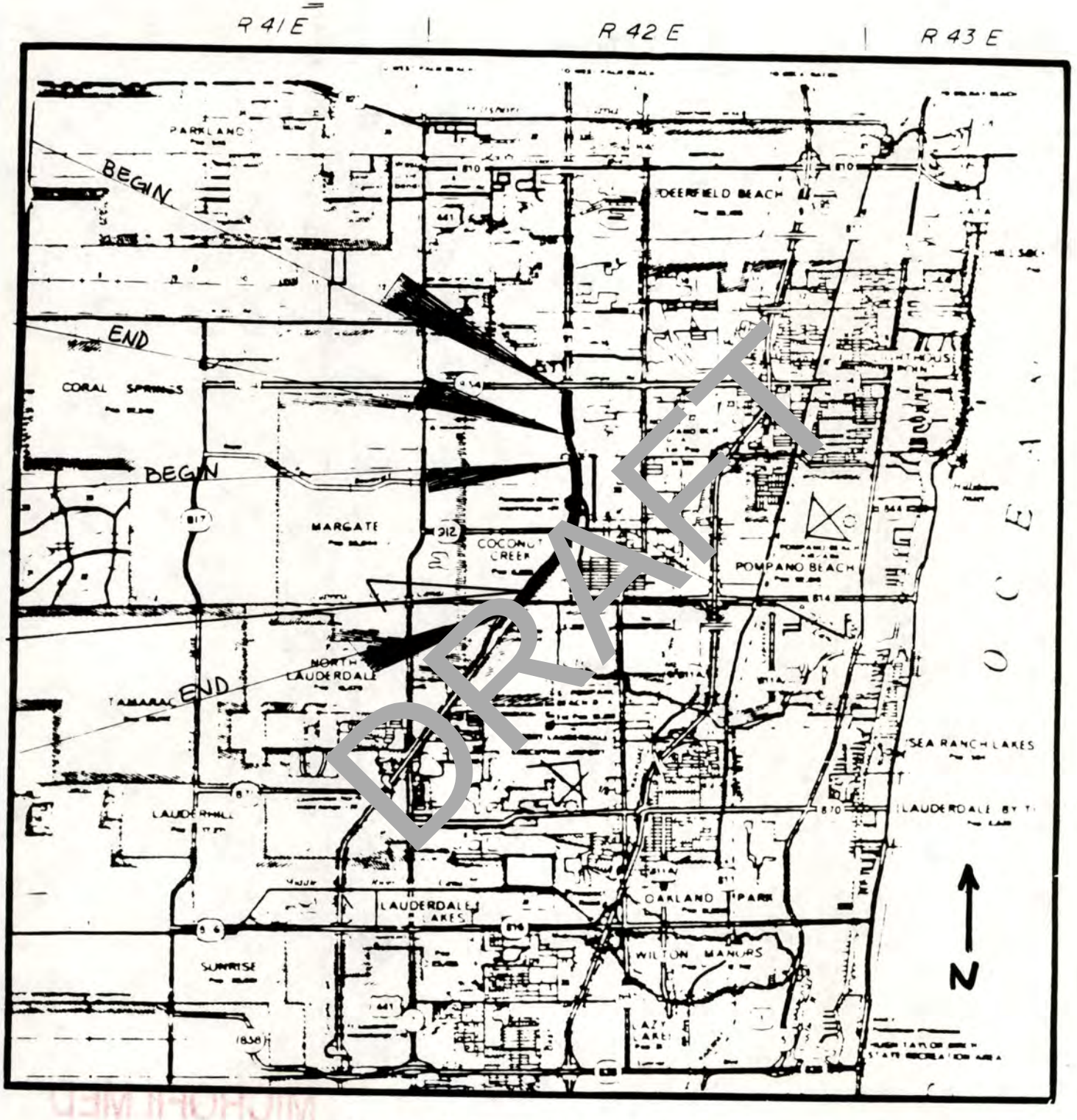
10. PRIOR TO DEWATERING, PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. INFORMATION SHALL INCLUDE AS A MINIMUM: PUMP SIZES, LOCATIONS AND HOURS OF OPERATION FOR EACH PUMP. IF OFF-SITE DISCHARGE IS PROPOSED, OR OFF-SITE ADVERSE IMPACTS ARE EVIDENT, AN INDIVIDUAL WATER USE PERMIT MAY BE REQUIRED. THE PERMITTEE IS CAUTIONED THAT SEVERAL MONTHS MAY BE REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION.

11. THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-40, FAC.

12. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.

13. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.

14. IF IT IS DETERMINED THAT THE PROPOSED MODIFICATIONS TO THE EXISTING ROADSIDE BORROW CANALS CAUSE ADVERSE OFF-SITE IMPACTS TO THE EXISTING OUTFALL LOCATED AT STATION 997+70 LEFT (BROWARD COMMUNITY COLLEGE), THE DEPARTMENT OF TRANSPORTATION SHALL RECTIFY THESE IMPACTS.



Location map

DRAFT

EXHIBIT 1

Draft/subject to change

FORM #0157
Rev 08/95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
PERMIT MODIFICATION NO. 06-01034-S
DATE ISSUED: NOVEMBER 9, 2006

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION-FTE
(FL TURNPIKE WIDENING-ATL BLVD/SAWGRASS EXPWY)
M.P. 263 FT BLDG. 53. TURKEY LAKE SERVICE PLAZA
OCOEE , FL 34761

ORIGINAL PERMIT ISSUED: MARCH 23, 1989

ORIGINAL PROJECT DESCRIPTION: ORIGINAL ISSUED AS A GENERAL PERMIT.

APPROVED MODIFICATION : MODIFICATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE A 458.14 ACRE HIGHWAY WIDENING PROJECT KNOWN AS FLORIDA'S TURNPIKE WIDENING - ATLANTIC BOULEVARD TO SAWGRASS EXPRESSWAY.

PROJECT LOCATION: BROWARD COUNTY , SECTION 4,5,8,9,16,17,20,21,28,29,32,33 TWP 48S
SECTION 5,6 TWP 49S RGE 42E

PERMIT DURATION: See Special Condition No.1. See attached Rule 40E-4.321, Florida Administrative Code.

This Permit Modification is approved pursuant to Application No. 060509-10, dated May , 2006. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of any activities authorized by this Permit. This Permit is issued under the provisions of Chapter 373, Part IV Florida Statutes(F.S.), and the Operating Agreement Concerning Regulation Under Part IV Chapter 373 F.S. between South Florida Water Management District and the Department of Environmental Protection. Issuance of this Permit constitutes certification of compliance with state water quality standards where necessary pursuant to Section 401, Public Law 92-500, 33 USC Section 1341, unless this Permit is issued pursuant to the net improvement provisions of Subsections 373.414(1)(b), F.S., or as otherwise stated herein.

This Permit Modification may be revoked, suspended, or modified at any time pursuant to the appropriate provisions of Chapter 373, F.S., and Sections 40E-4.351(1), (2), and (4), Florida Administrative Code (F.A.C.). This Permit Modification may be transferred pursuant to the appropriate provisions of Chapter 373, F.S., and Sections 40E-1.6107(1) and (2), and 40E-4.351(1), (2), and (4), F.A.C.

All specifications and special and limiting/general conditions attendant to the original Permit,unless specifically rescinded by this or previous modifications, remain in effect.

This Permit Modification shall be subject to the Environmental Resource Permit set forth in Rule 40E-4.381, F.A.C., unless waived or modified by the Governing Board. The Application, and Environmental Resource Permit Staff Review Summary of the Application, including all conditions, and all plans and specifications incorporated by reference, are a part of this Permit Modification. All activities authorized by this Permit Modification shall be implemented as set forth in the plans, specifications, and performance criteria as set forth and incorporated in the Environmental Resource Permit **Staff Review Summary. Within 30 days after completion of construction of the permitting activity, the Permittee shall submit a written** statement of completion and certification by a registered professional engineer or other appropriate individual, pursuant to the appropriate provisions of Chapter 373, F.S. and Section 40E-4.361 and 40E-4.381, F.A.C.

In the event the property is sold or otherwise conveyed, the Permittee will remain liable for compliance with this Permit until transfer is approved by the District pursuant to Rule 40E-1.6107, F.A.C.

SPECIAL AND GENERAL CONDITIONS ARE AS FOLLOWS:

SEE PAGES 2 - 5 OF 7 (17 SPECIAL CONDITIONS).
SEE PAGES 5 - 7 OF 7 (19 GENERAL CONDITIONS).

PERMIT MODIFICATION APPROVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ON **ORIGINAL SIGNED BY:**

BY **ELIZABETH VEGUILLA**

DEPUTY CLERK

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on November 9, 2011.

2. Operation of the surface water management system shall be the responsibility of PERMITTEE.

3. Discharge Facilities:

Basin: Basin 1

1-drop inlet with crest at elev. 10' NAVD.

Receiving body : C-14 Canal
Control elev : 5.93 feet NAVD. /5.93 FEET NAVD DRY SEASON.

Basin: Basin 2

1-5.25" dia. CIRCULAR ORIFICE with invert at elev. 7' NAVD.
1-drop inlet with crest at elev. 8' NAVD.

Receiving body : Existing system
Control elev : 7 feet NAVD. /7 FEET NAVD DRY SEASON.

Basin: Basin 3

1-6" dia. CIRCULAR ORIFICE with invert at elev. 8' N. VD.
1-drop inlet with crest at elev. 9' NAVD.

Receiving body : Existing system
Control elev : 8 feet NAVD. /8 FEET AVD DR SEASON.

Basin: Basin 4

1-2' WIDE SHARP CRES D weir wit rest a elev. 10.8' NAVD.
1-drop inlet with crest at v. 13.3' NAV

Receiving body : Existing syst
Control elev : 8.43 feet NAVD. /8. EET NAVD DRY SEASON.

4. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

5. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

6. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

7. Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth, unless shown on the plans.

8. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

9. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all

permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

10. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

11. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

12. All special conditions and exhibits previously stipulated by Permit Number 06-01034-S remain in effect unless otherwise revised and shall apply to this modification.

13. Reference is made to Exhibit No. 2, consisting of drainage plans and detail sheets. The drawings have been signed and sealed by Michael W. Shannon, P.E., of HNTB Corporation on September 1, 20[illegible] and have been included in this permit by reference (please see permit file).

14. Manatee exclusion grates shall be placed across the openings of existing or proposed culverts or pipes that are greater than eight inches but smaller than eight feet in diameter in accordance with Exhibit No. 2. The installation of grates applies to any submerged or partially submerged pipes and culverts accessible to manatees during any tidal phase. Permittee shall keep all grates free and clear of debris.

15. The permittee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s).

The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.

Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exist from essential habitat.

All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

If manatee(s) are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.

Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-772-562-3909) in south Florida.

Temporary signs concerning manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the permittee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads Caution: Manatee Area will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 81/2" by 11" which reads Caution: Manatee Habitat. Idle speed is required if operating a vessel in

the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-772-562-3909) in south Florida.

16. Silt screens, hay bales, turbidity screens/barriers or other such sediment control measures shall be utilized during construction. The selected sediment control measures shall be installed prior to the commencement of construction in or adjacent to other surface waters in accordance with Exhibit No. 2 and shall remain in place until all adjacent construction is completed. All areas shall be stabilized and vegetated immediately after construction to prevent erosion into the wetlands and upland buffer zones.

17. The authorization for construction of the surface water management system is issued pursuant to the water quality net improvement provisions referenced in Rule Section 40E-4.303(1), Florida Administrative Code; therefore, the state water quality certification is waived.

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activities authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee

shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
SURFACE WATER MANAGEMENT
GENERAL PERMIT NO. 06-01909-S
DATE ISSUED: October 23, 2006

Form #0942
08/95

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION
FLORIDA'S TURNPIKE
MILE POST 263, BLDG. 5313
OCOEE, FL 34671

PROJECT DESCRIPTION: Modification of a surface water management system to serve 0.89 acres of additional impervious area within the 24.47-acre highway development known as Pompano Service Plaza Operations Center.

PROJECT LOCATION: BROWARD COUNTY, SEC 5 TWP 49S RGE 42E

PERMIT DURATION: See Special Condition No:1. See attached Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Permit Application No. 060825-20, dated August 25, 2006. This action is taken pursuant to Rule 40E-1.606 and Chapter 40E-40, Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and a Surface Water Management General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 19 Standard Limiting Conditions (See Pages : 2 - 3 of 4),
3. the attached 10 Special Conditions (See Pages : 4 - 4 of 4) and
4. the attached 2 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 23rd day of October, 2006, in accordance with Section 120.60(3), Florida Statutes.

BY: _____
Anthony M. Waterhouse, P.E.
Director - Surface Water Management
Palm Beach Service Center

Certified mail number 7005 0390 0005 9815 [illegible]

STANDARD LIMITING CONDITIONS

1. The permittee shall implement the work authorized in a manner so as to minimize any adverse impact of the works on fish, wildlife, natural environmental values, and water quality. The permittee shall institute necesssary measures during the construction period, including full compaction of any fill material placed around newly installed struotures, to reduce erosion, turbidity, nutrient loading and sedimentation in the receiving waters.

2. Water quality data for the water discharged from the permittee's property or into surface waters of the State will be submitted to the District as required by Section 5.9, "Basis of Review for Surface Water Management Permit Applications within South Florida Water Management District". Parameters to be monitored may include those listed in Chapter 62-302, F.A.C.. If water quality data is required, the permittee shall provide data on volumes of water discharged, including total volume discharged during the days of sampling and total monthly discharges from the property or into surface waters of the State.

3. This permit shall not relieve the permittee of any obligation to obtain necessary federal, State, local or special district approvals.

4. The operation phase of this permit will not become effective until the District's acceptance of certification of the completed surface water management system. The permittee shall request transfer of the permit to the responsible operation entity accepted by the District, if different from the permittee. The transfer request can be submitted concurrently with the construction completion certification.

5. All road elevations shall be set in accordance with the criteria set forth in Section 6.5, "Basis of Review for Surface Water Management Permit Applications within South Florida Water Management District".

6. All building floor elevations shall be set in accordance with the criteria set forth in Section 6.4, "Basis of Review for Surface Water Management Permit Applications within South Florida Water Management District ".

7. Off-site discharges during construction and development will be made only through the facilities authorized by this permit.

8. A permit transfer to the operation phase shall not occur until a responsible entity meeting the requirement in Section 9.0, "Basis of Review for Surface Water Management Permit Applications within South Florida Water Management District" has been established to operate and maintain the system. The entity must be provided with sufficient ownership or legal interest so that it is has control over all water managment facilities authorized herein.

9. The permit does not convey to the permittee any property rights or privileges other than those specified in the permit and Chapter 40E-4, F.A.C.

10. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance or use of any facility authorized by the permit.

11. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

12. Within 30 days of issuance of this permit, the permittee or authorized agent shall notify the District (via the supplied construction commencement notice or equivalent) of the actual or anticipated construction start date and the expected completion date.

STANDARD LIMITING CONDITIONS

13. When the duration of construction exceeds one year, the permittee or authorized agent shall submit construction status reports on an annual basis (via the supplied annual status report or equivalent) beginning one year after the initial commencement of construction.

14. Within 30 days after completion of construction of the surface water management system, the permittee or authorized agent shall file a written statement of completion and certification by a Florida registered professional engineer. These statements must specify the actual date of construction completion and must certify that all facilities have been constructed in substantial conformance with the plans and specifications approved by the District (via the supplied construction completion/certification or equivalent). The construction completion certification must include, at a minimum, existing elevations, locations and dimensions of the components of the water management facilities. Additionally, if deviations from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted.

15. Within 30 days of any sale, conveyance or other transfer of any of the land which is proposed for development under the authorization of this permit, the permittee shall notify the District of such transfer in writing via either Form 0483, Request for Permit Transfer; or Form 0920, Request for Transfer of Surface Water Managment Construction Phase to Operation Phase (to be completed and submitted by the operating entity), in accordance with Sections 40E-1.6105 AND 40E-4.351, F.A.C..

16. A prorated share of surface water management retention/detention areas, sufficient to provide the required flood protection and water quality treatment, must be provided prior to occupancy of any building or residence.

17. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted disoharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

18. It is the responsibility of the permittee to insure that adverse off-site water resource related impacts do not occur during construction.

19. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(4), F.A.C..

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on October 23, 2011.

2. Operation of the surface water management system shall be the responsibility of FLORIDA DEPARTMENT OF TRANSPORTATION.

3. Discharge Facilities:

   1-.5' WIDE RECTANGULAR NOTCH weir with crest at elev. 9.8' NGVD.
   1-4.08' W X 3.08' L drop inlet with crest at elev. 13.5' NGVD.

   Receiving body : Turnpike system
   Control elev : 8 feet NGVD.

4. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

5. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

6. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

7. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

8. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

9. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

10. All special conditions and exhibits previously stipulated by permit number 06-01909-S remain in effect unless otherwise revised and shall apply to this modification.

40E-4.321 Duration of Permits

(1) Unless revoked or otherwise modified pursuant to Rules 40E-4.331 and 40E-4.441, F.A.C., the duration of a surface water management permit issued under this chapter is as follows:

(a) Two years from the date of issuance for Conceptual Approval, unless within that period an application for a construction and operation permit is filed for any portion of the project. If an application for a construction and operation permit is filed, then the Conceptual Approval remains valid until final action is taken on the application. If the application is granted, then the Conceptual Approval is valid for an additional two years from the date of issuance of the construction and operation permit. Conceptual Approvals which have no applications for construction and operation filed for a period of two years will expire automatically.

(b) Five years from the date of issuance for a construction permit.

(c) Perpetual for an operation permit.

(2) The Governing Board shall issue permit extensions provided that a permittee files a written request with the District showing good cause. For the purpose of this rule, good cause shall mean a set of extenuating circumstances outside of the control of the permittee. Requests for extensions, which shall include documentation of the extenuating circumstanoes and how they have delayed this project, will not be accepted more than 180 days prior to the expiration date.

(3) For a Conceptual Approval filed concurrently with a development of regional impact (DRI) application for development approval (ADA) and a local government comprehensive amendment, the duration of the Conceptual Approval shall be two years from whichever one of the following occurs at the latest date:

(a) the effective date of the local government's comprehensive plan amendment,

(b) the effective date of the local government development order, or

(c) the date on which the district issues the Conceptual Approval or

(d) the latest date of the resolution of any Chapter 120 or other legal appeals.

(4) Substantial modifications to Conceptual Approvals will extend the duration of the Conceptual Approval for two years from the date of issuance of the modification. For the purposes of this section, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different water resource or environmental impacts which require a detailed review.

(5) Modifications to construction permits issued pursuant to a formal permit application extend the duration of the permit for three years from the date of issuance of the modification. Construction permit modifications do not extend the duration of a Conceptual Approval.

(6) Permit modifications issued pursuant to subsection 40E-4.331(2)(b), F.A.C. (letter modifications) do not extend the duration of a perm

Specific authority 373.044, 373.113 F.S. Law Implemented 373.413, 373.416(1) F.S. History—New 9-3-81, Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4/20/94.

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing and/or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

Right to Request Administrative Hearing
A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569, 120.57, and 120.60(3), Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision in accordance with Rule 28-106.111, Fla. Admin. Code. Any person who receives written notice of a District decision and fails to file a written request for hearing within 21 days waives the right to request a hearing on that decision as provided by Subsection 28-106.111(4), Fla. Admin. Code.

The Petition must be filed at the Office of the District Clerk of the SFWMD, 3301 Gun Club Road, P.O. Box 24680, West Palm Beach, Florida, 33416, and must comply with the requirements of Rule 28-106.104, Fla. Admin. Code. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filings by e-mail will not be accepted.** A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Pursuant to Rule 28-106.104, Fla. Admin. Code, any document received by the office of the District Clerk after 5:00 p.m. shall be filed as of 8:00 a.m. on the next regular business day.

- Filings made by mail must include the original and one copy and must be addressed to the Office of the District Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.

- Filings by hand-delivery must also include the original and one copy of the petition. **Delivery of a petition to the District's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the District's security officer to contact the Clerk's office.** An employee of the District's Clerk's office will file the petition and return the extra copy reflecting the date and time of filing.

- Filings by facsimile must be transmitted to the District Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the District Clerk receives the complete document.

The following provisions may be applicable to SFWMD actions in combination with the applicable Uniform Rules of Procedure (Subsections 40E-0.109(1)(a) and 40E-1.511(1)(a), Fla. Admin. Code):

(1)(a) "Receipt of written notice of agency decision" as set forth in Rule 28-106.111, Fla. Admin. Code, means receipt of either written notice through mail or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action.

(b) If notice is published pursuant to Chapter 40E-1, F.A.C., publication shall constitute constructive notice to all persons. Until notice is published, the point of entry to request a formal or informal administrative proceeding shall remain open unless actual notice is received.

(2) If the District's Governing Board takes action which substantially differs from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law. The District Governing Board's action is considered to substantially differ from the notice of intended agency decision when the potential impact on water resources has changed.

(3) Notwithstanding the timeline in Rule 28-106.111, Fla. Admin. Code, intended agency decisions or agency decisions regarding consolidated applications for Environmental Resource Permits and Use of Sovereign Submerged Lands pursuant to Section 373.427, Fla. Stat., shall provide a 14 day point of entry to file petitions for administrative hearing.

Hearings Involving Disputed Issues of Material Fact

The procedure for hearings involving disputed issues of material fact is set forth in Subsection 120.57(1), Fla. Stat., and Rules 28-106.201-.217, Fla. Admin. Code. Petitions involving disputed issues of material fact shall be filed in accordance with Rule 28-106.104, Fla. Admin. Code, and must comply with the requirements set forth in Rule 28-106.201, Fla. Admin. Code.

Hearings Not Involving Disputed Issues of Material Fact

The procedure for hearings not involving disputed issues of material fact is set forth in Subsection 120.57(2), Fla. Stat, and Rules 28-106.301-.306, Fla. Admin. Code. Petitions not involving disputed issues of material fact shall be filed in accordance with Rule 28-106.104, Fla. Admin. Code, and must comply with the requirements set forth in Rule 28-106.301, Fla. Admin. Code.

Mediation

As an alternative remedy under Sections 120.569 and 120.57, Fla. Stat., any person whose substantial interests are or may be affected by the SFWMD's action may choose to pursue mediation. The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement.

DISTRICT COURT OF APPEAL

Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

Last Date For Agency Action: 24-OCT-2006

GENERAL SURFACE WATER MANAGEMENT STAFF REPORT

Project Name: Pompano Service Plaza Operations Center Extension

Permit No.: 06-01909-S

Application No.: 060825-20

Application Type: Surface Water Management (General Permit Modification)

Location: Broward County, S5/T49S/R42E

Permittee : Florida Department Of Transportation

Operating Entity : Florida Department Of Transportation

Project Area: 24.47 acres

Project Land Use: Highway

Drainage Basin: C-14

Receiving Body: Turnpike system

Special Drainage District: NA

Conservation Easement To District : No

Sovereign Submerged Lands: No

PROJECT PURPOSE:

This application is a request for modification of a surface water management system to serve 0.89 acres of additional building and pavement area within a within 24.47-acre highway development known as Pompano Service Plaza Operations Center.

PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The site is the existing Pompano Beach Service Plaza located south of Atlantic Boulverad in the City of Pompano Beach. The permitted surface water management system consists of inlets and culverts conveying runoff to a dry detention area. Discharge from the dry detention area is to the turnpike system through a control structure. There are no wetlands or other surface waters located within or affected by the proposed project.

PROPOSED PROJECT:

Proposed is the modification of a surface water management system to serve 0.89 acres of additional building and pavement area within a 24.47-acre highway development known as Pompano Service Plaza Operations Center. The applicant's engineer submitted calculations to demonstrate that the previously permitted surface water management system can accomodate the additional impervious area. The only modification to the previously permitted system is to raise the previously permitted weir crest elevation from 9.6' NGVD to 9.8 NGVD.

LAND USE:

Construction:
Project:

	Previously Permitted	This Phase	Total Projec	
Building Coverage	.42	.33	.75	acres
Dry Detention Areas	4.78		3.89	acres
Pavement	10.54	.56	11.10	acres
Pervious	8.73		8.73	acres
Total:	**24.47**	**.89**	**24.47**	

WATER QUANTITY :

Discharge Rate :

The applicant engineer provided updated calculations to demonstrate that the post-development discharge for the 25-year 3-day design storm will not exoeed the previously permitted rate.

Control Elevation :

Basin	Area (Acres)	Ctrl Elev (ft, NGVD)	WSWT Ctrl Elev (ft, NGVD)	Method Of Determination
Site	24.47	8	8.00	Previously Permitted

Receiving Body :

Basin	Str.#	Receiving Body
Site	Str S-1	Turnpike system

Discharge Structures: Note: The units for all the elevation values of structures are (ft, NGVD)

Discharge Structures:

Inlets:

Basin	Str#	Count	Type	Width	Length	Dia.	Crest Elev.
Site	Str S-1	1	Inlet	4.08'	3.08'		13.5

Weirs:

Basin	Str#	Count	Type	Width	Height	Length	Dia.	Elev.
Site	Str S-1	1	Rectangular Notch	.5'				9.8 (crest)

WATER QUALITY :

The required water quality treatment for the project consisting of the first inch of runoff will be provided within a dry detention area.

Basin	Treatment Method		Vol Req.d (ac-ft)	Vol Prov'd (ac-ft)
Site	Treatment	Dry Detention	2.04	2.04

CERTIFICATION AND MAINTENANCE OF THE WATER MANAGEMENT SYSTEM :

It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4.361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of the permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

RELATED CONCERNS:

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Water Use Permit Status:

The applicant has indicated that a water use permit is not required for the proposed activities. In addition, the applicant has indicated that dewatering is not required for construction of this project. This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation, unless the work qualifies for a No-Notice Short-Term Dewatering permit pursuant to Chapter 40E-20.302(3) or is exempt pursuant to Section 40E-2.051, FAC.

Historical/Archeological Resources:

No information has been received that indicates the presence of archaeological or historical resources or that the proposed activities could cause adverse impacts to archaeological or historical resources.

DCA/CZM Consistency Review:

The District has not received a finding of inconsistency from the Florida Depa[illegible]ent of Environmental Protection or other commenting agencies regarding the provisions of t[illegible]eral Coastal Zone Management Plan.

Enforcement:

There has been no enforcement activity associated with this applic[illegible]n.

STAFF REVIEW:

DIVISION APPROVAL:

SURFACE WATER MANAGEMENT:

Carlos A. DeRojas, P.E. DATE: 10/20/06

NATURAL RESOURCE MA[illegible]GEMENT:

Barbara Conmy DATE: 10/20/06

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD GENERAL PERMIT NO. 06-01909-S
DATE ISSUED:November 12, 2010

Form #0941
08/95

PERMITTEE: FLORIDA DEPARTMENT OF
TRANSPORTATION/TURNPIKE
P O BOX 613069
OCOEE, FL 34761

PROJECT DESCRIPTION: Modification of a surface water management system to serve a 26.69-acre commercial and highway development known as Pompano Beach Service Plaza Improvements.

PROJECT LOCATION: BROWARD COUNTY, SEC 5 TWP 49S RGE 42E

PERMIT DURATION: See Special Condition No:1. See attached Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 100602-5, dated June 2, 2010. This action is taken pursuant to Rule 40E-1.603 and Chapter 40E-40 , Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and an Environmental Resource General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 19 General Conditions (See Pages : 2 - 4 of 6) and
3. the attached 12 Special Conditions (See Pages : 5 - 6 of 6)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 12th day of November, 2010, in accordance with Section 120.60(3), Florida Statutes.

BY: Anita R. Bain

Anita R. Bain
Director - Environmental Resource Permitting Division
Palm Beach Service Center

Certified mail number 7005 0390 0005 9821 5002

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit

GENERAL CONDITIONS

Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit

GENERAL CONDITIONS

application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on November 13, 2015.

2. Operation of the surface water management system shall be the responsibility of PERMITTEE.

3. Discharge Facilities:

   Structure: S-10

   1-4.08' WIDE SHARP CRESTED weir with crest at elev. 11.1' NAVD 88.
   1-3" dia. CIRCULAR ORIFICE with invert at elev. 8.8' NAVD 88.
   1-drop inlet with crest at elev. 13.07' NAVD 88.
   Receiving body : Wet detention pond
   Control elev : 5.93 feet NAVD 88.

   Structure: S-11

   1-4.25' WIDE SHARP CRESTED weir with crest at elev. 6.71' NAVD 88.
   1-5.5" W X ' H CIRCULAR ORIFICE with invert at elev. 6.71' NAVD 88.
   Receiving body : Turnpike system
   Control elev : 5.93 feet NAVD 88.

   Structure: S-12

   1-4.08' WIDE SHARP CRESTED weir with crest at elev. 11.1' NAVD 88.
   1-3" W X ' H CIRCULAR ORIFICE with invert at elev. ' NAVD 88.
   1-drop inlet with crest at elev. 12.91' NAVD 88.
   Receiving body : Wet detention pond
   Control elev : 5.93 feet NAVD 88.

4. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

5. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

6. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

7. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

8. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

9. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

10. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District

SPECIAL CONDITIONS

will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

11. The permittee acknowledges that, pursuant to Rule 40E-4.101(2), F.A.C., a notice of Environmental Resource or Surface Water Management Permit may be recorded in the county public records. Pursuant to the specific language of the rule, this notice shall not be considered an encumbrance upon the property.

12. If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

40E-4.321 Duration of Permits

(1) Unless revoked or otherwise modified pursuant to Rules 40E-4.331 and 40E-4.441, F.A.C., the duration of a surface water management permit issued under this chapter is as follows:

(a) Two years from the date of issuance for Conceptual Approval, unless within that period an application for a construction and operation permit is filed for any portion of the project. If an application for a construction and operation permit is filed, then the Conceptual Approval remains valid until final action is taken on the application. If the application is granted, then the Conceptual Approval is valid for an additional two years from the date of issuance of the construction and operation permit. Conceptual Approvals which have no applications for construction and operation filed for a period of two years will expire automatically.

(b) Five years from the date of issuance for a construction permit.

(c) Perpetual for an operation permit.

(2) The Governing Board shall issue permit extensions provided that a permittee files a written request with the District showing good cause. For the purpose of this rule, good cause shall mean a set of extenuating circumstances outside of the control of the permittee. Requests for extensions, which shall include documentation of the extenuating circumstances and how they have delayed this project, will not be accepted more than 180 days prior to the expiration date.

(3) For a Conceptual Approval filed concurrently with a development of regional impact (DRI) application for development approval (ADA) and a local government comprehensive plan amendment, the duration of the Conceptual Approval shall be two years from whichever one of the following occurs at the latest date:

(a) the effective date of the local government's comprehensive plan amendment,

(b) the effective date of the local government development order, or

(c) the date on which the district issues the Conceptual Approval, or

(d) the latest date of the resolution of any Chapter 120 or other legal appeals.

(4) Substantial modifications to Conceptual Approvals will extend the duration of the Conceptual Approval for two years from the date of issuance of the modification. For the purposes of this section, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different water resource or environmental impacts which require a detailed review.

(5) Modifications to construction permits issued pursuant to a formal permit application extend the duration of the permit for three years from the date of issuance of the modification. Construction permit modifications do not extend the duration of a Conceptual Approval.

(6) Permit modifications issued pursuant to subsection 40E-4.331(2)(b), F.A.C. (letter modifications) do not extend the duration of a permit.

Specific authority 373.044, 373.113 F.S. Law Implemented 373.413, 373.416(1) F.S. History—New 9-3-81, Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-84, 12/20/94.

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filings by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office**. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

Initiation of an Administrative Hearing

Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

Last Date For Agency Action: November 13, 2010

GENERAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Pompano Beach Service Plaza New Construction

Permit No.: 06-01909-S

Application No.: 100602-5 **Associated File:** 100901-37 WU Concurrent

Application Type: Environmental Resource (General Permit Modification)

Location: Broward County, S5/T49S/R42E

Permittee : Florida Department Of Transportation/Turnpike

Operating Entity : Permittee

Project Area: 26.69 acres

Project Land Use: Highway
Commercial

Drainage Basin: C-14

Receiving Body: Turnpike system **Class:** N/A

Special Drainage District: Broward County Water Control District 4

Conservation Easement To District : No

Sovereign Submerged Lands: No

PROJECT PURPOSE:

This application is a request for modification of a surface water management system to serve a 26.69-acre commercial and highway project known as Pompano Beach Service Plaza Improvements.

PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The site is the existing Pompano Beach Service Plaza located south of Atlantic Boulevard in the City of Pompano Beach. The permitted surface water management system consists of inlets and culverts conveying runoff to a dry detention area. Discharge from the dry detention area is to the turnpike system through a control structure. There are no wetlands or other surface waters located within or affected by the proposed project.

PROPOSED PROJECT:

Proposed is the modification of a surface water management system to serve a 26.69 acre commercial and highway project known as Pompano Beach Service Plaza Improvements. The project involves a partial site rebuild at the northern half of the Turnpike Pompano Beach Service Plaza. The proposed surface water management system will consist of inlets and culverts which will direct runoff into two dry pre-treatment swales which will overflow into an existing wet detention pond. As part of this application, updated calculations for the plaza were submitted. The final control structure ((S-11) will be modified slightly as part of this project.

LAND USE:

Construction:
Project:

	Total Project	
Building Coverage		acre
Impervious	3.04	acres
Pervious	4.75	acres
Water Mgnt Acreage	8.6	
Total:	**26.**	

WATER QUANTITY :

Discharge Rate :

The applicant's engineer provided updated calculations to demonstrate that the post-development discharge for the 25-year 3-day design event will not exceed the previously permitted rate.

Finished Floors :

Building Storm Frequency : 100 YEAR-3 DAY Design Rainfall : 19.5 inches

Basin	Peak Stage (ft, NAVD 88)	Proposed Min. Finished Floors (ft, NAVD 88)	FEMA Elevation (ft, NAVD 88)
Site	12.2	16.6	9.43

Parking Lot Design :

Parking Lot Storm Frequency : 10 YEAR-1 DAY Design Rainfall :8.5 inches

Basin	Peak Stage (ft, NAVD 88)	Proposed Min.Parking Elev. (ft, NAVD 88)
Site	12.51	12.5

Control Elevation :

Basin	Area (Acres)	Ctrl Elev (ft, NAVD 88)	WSWT Ctrl Elev (ft, NAVD 88)	Method Of Determination
Site	26.69	5.93	5.93	Previously Permitted

Receiving Body :

Basin	Str.#	Receiving Body
Site	S-10	Wet detention pond
Site	S-11	Turnpike system
Site	S-12	Wet detention pond

Discharge Structures: Note: The units for all the elevation values of structures are (ft, NAVD 88)

Bleeders:

Basin	Str#	Count	Type	Width	Height	Length	Dia.	Invert Angle	Invert Elev.
Site	S-11	1	Circular Orifice	5"					6.71

Weirs:

Basin	Str#	Count	Type	Width	Height	Length	Dia.	Elev.
Site	S-11	1	Sharp Crested	4.25				6.71 (crest)

SWM(Internal) Structures: Note: The units for all the elevation values of structures are (ft, NAVD 88)

Bleeders:

Basin	Str#	Count	Type	Width	Height	Length	Dia.	Invert Angle	Invert Elev.
Site	S-10	1	Circular Orifice				3"		8.8
Site	S-12	1	Circular Orifice	3"					8.5

Inlets:

Basin	Str#	Count	Type	Width	Length	Dia.	Crest Elev.
Site	S-10	1	Fdot Mod D Drop Inlet				13.07
Site	S-12	1	Drop Inlet				12.91

Weirs:

Basin	Str#	Count	Type	Width	Height	Length	Dia.	Elev.
Site	S-10	1	Sharp Crested	4.08'				11.1 (crest)
Site	S-12	1	Sharp Crested	4.08'				11.1 (crest)

WATER QUALITY :

The water quality treatment for the project consists of pre-treatment of the first one-half inch of runoff within two dry detention swales prior to overflowing into the wet detention pond which will provide the remainder of the water quality treatment requirement.

Basin	Treatment Method	Vol Req.d (ac-ft)	Vol Prov'd

Basin		Treatment Method	Vol Req.d (ac-ft)	Vol Prov'd
Site	Pre-Treatment	Dry Detention	.44	.46
Site	Treatment	Wet Detention	2.29	2.31

CERTIFICATION AND MAINTENANCE OF THE WATER MANAGEMENT SYSTEM:

It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4.361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of this permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

RELATED CONCERNS:

Water Use Permit Status:

The applicant has been issued a water use permit for this project. This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation.

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Right-Of-Way Permit Status:

A District Right-of-Way Permit is not required for this project.

DRI Status:

This project is not a DRI.

Historical/Archeological Resources:

No information has been received that indicates the presence of archaeological or historical resources or that the proposed activities could cause adverse impacts to archaeological or historical resources.

DCA/CZM Consistency Review:

The issuance of this permit constitutes a finding of consistency with the Florida Coastal Management Program.

Enforcement:

There has been no enforcement activity associated with this application.

STAFF REVIEW:

DIVISION APPROVAL:

NATURAL RESOURCE MANAGEMENT:

Barbara J. Conmy

DATE: 11/8/10

SURFACE WATER MANAGEMENT:

Carlos A. de Rojas, P.E.

DATE: 11/8/10

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
District Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406 (561) 686-8800 www.sfwmd.gov

Regulation
Application No.: 120202-4

February 24, 2012

FLORIDA TURNPIKE ENTERPRISE
P O BOX 613069
OCOEE, FL 34761

Dear Permittee:

SUBJECT: PERMIT NO.: 06-01909-S
Project : POMPANO BEACH SERVICE PLAZA NEW CONSTRUCTION
Location: Broward County, S5/T49S/R42E

District staff has reviewed the information submitted February 2, 2012, for the modification of the proposed swales due to the conflict with the existing underground utility and construction of shoulders. A new shallow swale, Swale E, is proposed at the southeast corner of the project along with 214 feet of 18 inch exfiltration trench located along Swale A to provide for the required storage volume.

Based on that information, District staff has determined that the proposed activities are in compliance with the original surface water management permit and appropriate provisions of FAC Rule 40E-4.331(2)(b). Therefore, these changes have been recorded in our files.

Please understand that your permit remains subject to the Standard Limiting Conditions and all other Special Conditions not modified and as originally issued.

Should you have any questions concerning this matter, please contact this office.

Sincerely,

Carlos A. de Rojas, P.E.
Section Leader - Swm
Regulation Division

CD/jg

c: Broward County Engineer
Jacobs Engineering Group Inc

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or fax. **Filings by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does <u>not</u> constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office**. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

Initiation of an Administrative Hearing
Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation
The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW
Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

bc: Daryl Stoddard
Jeffrey Greenfield, Ph.D, P.E.
Environmental Resource Compliance - 4230
Permit File - 4240

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Regulation
Application No.: 190806-3

August 27, 2019

FDOT FLORIDAS TURNPIKE ENTERPRISE
P O BOX 613069
OCOEE, FL 34761

Dear Permittee:

SUBJECT: **Permit No.: 06-01034-S**
Project : TURNPIKE DRAINAGE IMPROVEMENTS FROM COCONUT CK PKWY TO COPAN
Location: Broward County, S28/T48S/R42E

District staff has reviewed the information submitted August 6, 2019, for the modification of Permit No. 06-01034-S for construction of a conveying ditch discharging over a ditch block at elevation 9.5 feet-NAVD to Broward County's C-3 Canal and ultimately to the SFWMD C-14 Canal, along the east side of Florida's Turnpike just north of the Coconut Creek Parkway interchange and restoring the right-of-way berm as shown in Exhibit 2.0. The post development peak discharge rate does not exceed the historical peak discharge rate for the 25-year, 3-day storm event.

Based on that information, District staff has determined that the proposed activities are in compliance with the original environmental resource permit and appropriate provisions of paragraph 40E-4.331(2)(b) or 62-330.315(2)(g), Florida Administrative Code. Therefore, these changes have been recorded in our files.

Your permit remains subject to the General Conditions and all other Special Conditions not modified and as originally issued.

Should you have any questions or comments regarding this authorization, please contact this office.

Sincerely,

Adnan Mirza, P.E.
Section Leader Engineer
Regulation Division

AM/ht

c: Atkins
Broward County Engineer

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the Board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.

- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.

South Florida Water Management District
Individual Environmental Resource Permit No. 06-102299-P
Date Issued: December 10, 2019

Permittee: Florida Department Of Transportation - Florida's Turnpike Enterprise
PO Box 613069
Ocoee, FL 34761

Project: Pompano Beach Service Plaza Improvements

Application No. 191018-2081

Location: Broward County, See Exhibit 1

Your application for an Individual Environmental Resource Permit is approved. This action is taken based on Chapter 373, Part IV, of Florida Statutes (F.S.) and the rules in Chapter 62-330, Florida Administrative Code (F.A.C.). Unless otherwise stated, this permit constitutes certification of compliance with state water quality standards under section 401 of the Clean Water Act, 33 U.S.C. 1341, and a finding of consistency with the Florida Coastal Management Program. Please read this entire agency action thoroughly and understand its contents.

This permit is subject to:

- Not receiving a filed request for a Chapter 120, F.S., administrative hearing.
- The attached General Conditions for Environmental Resource Permits.
- The attached Special Conditions.
- All referenced Exhibits.

All documents are available online through the District's ePermitting site at www.sfwmd.gov/ePermitting.

If you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

The District does not publish notices of action. If you wish to limit the time within which a person may request an administrative hearing regarding this action, you are encouraged to publish, at your own expense, a notice of agency action in the legal advertisement section of a newspaper of general circulation in the county or counties where the activity will occur. Legal requirements and instructions for publishing a notice of agency action, as well as a noticing format that can be used, are available upon request. If you publish a notice of agency action, please send a copy of the affidavit of publication provided by the newspaper to the District's West Palm Beach office for retention in this file.

If you have any questions regarding your permit or need any other information, please call us at 1-800-432-2045 or email ERP@sfwmd.gov.

Ricardo A. Valera, P.E.
Bureau Chief, Environmental Resource Bureau

South Florida Water Management District
Individual Environmental Resource Permit No. 06-102299-P

Date Issued: December 10, 2019	**Expiration Date:** December 10, 2024
Project Name:	Pompano Beach Service Plaza Improvements
Permittee:	Florida Department Of Transportation - Florida's Turnpike Enterprise PO Box 613069 Ocoee, FL 34761
Operating Entity:	Florida Department Of Transportation - Florida's Turnpike Enterprise PO Box 613069 Ocoee, FL 34761
Location:	Broward County
Permit Acres:	10.46 acres
Project Land Use:	Transportation Commercial
Special Drainage District:	N/A
Water Body Classification:	CLASS I
FDEP Water Body ID:	3270
Conservation Easement to District:	No
Sovereign Submerged Lands:	No

Project Summary

This Environmental Resource Permit authorizes Construction and Operation of a stormwater management (SWM) system serving 10.46 acres of governmental development known as Pompano Beach Service Plaza Improvements.

The project includes the relocation and addition of parking spaces and modifications to curb radii.

Issuance of this permit constitutes certification of compliance with state water quality standards in accordance with Rule 62-330.062, F.A.C.

Site Description

The site is located on The Florida's Turnpike between Atlantic Boulevard to the north and West Commercial Boulevard to the south in Broward county, Florida. Please see Exhibit 1.0 for a location map.

The site is the Pompano Beach Service Plaza.

For information on wetland and surface water impacts, please see the Wetlands and Other Surface Water section of this permit.

Background
The Pompano Beach Service Plaza was originally permitted under SFWMD Permit No. 06-01909-S in October, 1993 for site restoration by FDOT. The original permit has been modified since in August, 2006 by URS Corporation and by Jacobs Engineering in June, 2010 and February, 2012.

Ownership, Operation and Maintenance
Perpetual operation and maintenance of the stormwater management system will be the responsibility of Florida Department of Transportation - Florida's Turnpike Enterprise. Upon conveyance or division of ownership or control of the property or the system, the permittee must notify the Agency in writing within 30 days, and the new owner must request transfer of the permit.

Engineering Evaluation:

Land Use
Please refer to the land use table.

Water Quality
Water quality treatment is provided in the Pompano Beach Service Plaza master SWM system.

The project includes implementation of a Construction Pollution Prevention Plan or Turbidity and Erosion Control Plan (Exhibit 2.0) as additional reasonable assurance of compliance with water quality criteria during construction and operation.

Discharge
The project is consistent with the land use and site grading assumptions within the previous permit. Therefore, the SWM system for this project has not been designed to limit discharge from the design event to a specified rate.

Certification, Operation, and Maintenance
Pursuant to Chapter 62-330.310, F.A.C., Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

For projects permitted with an operating entity that is different from the permittee, it should be noted that until the construction completion certification is accepted by the District and the permit is transferred to an acceptable operating entity pursuant to Sections 12.1-12.3 of the Applicant's Handbook Volume I and Section 62-330.310, F.A.C., the permittee is liable for operation and maintenance in compliance with the terms and conditions of this permit.

In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all SWM systems and works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity.

The efficiency of SWM systems, dams, impoundments, and most other project components will decrease over time without periodic maintenance. The operation and maintenance entity must perform periodic inspections to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of projects that may endanger public health, safety, or welfare, or the water resources. If deficiencies are found, the operation and maintenance entity is responsible for correcting the deficiencies in a timely manner to prevent compromises to flood protection and water quality. See Section 12.4 of the Applicant's Handbook Volume I for Minimum Operation and Maintenance Standards.

Engineering Evaluation Tables:
Land Use

Basin	Land Type	Area (ac)	% of Total Basin
Project	Impervious	8.81	84.23
	Pervious	1.65	15.77
	Total:	10.46	100%

Environmental Evaluation:

Wetlands and Other Surface Waters
There are no wetlands or other surface waters located within the project site or affected by this project.

Related Concerns:

Historical/ Archeological Resources
No information has been received that indicates the presence of archaeological or historical resources on the project site or indicating that the project will have any effect upon significant historic properties listed, or eligible for listing in the National Register of Historic Places.

This permit does not release the permittee from complying with any other agencies requirements in the event that historical and/or archaeological resources are found on the site.

Water Use Permit Status
Water Use Permit No. 06-06128-W is in effect for landscape irrigation at the Pompano Beach Turnpike Service Plaza.

Dewatering is not required for construction of this project.

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation.

General Conditions for Individual Environmental Resource Permits, 62-330.350, F.A.C.

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation, June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013), (http://www.flrules.org/Gateway/reference.asp?No=Ref-02505), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require an NPDES stormwater construction general permit, submittal of the Notice of Intent to use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.

5. Unless the permit is transferred under rule 62-330.340, F.A.C., or transferred to an operating entity under rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms, and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
   a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex- "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit"[Form 62-330.310(3)]; or
   b. For all other activities- "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
   c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:
   a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as

applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations, and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
b. Within 30 days of submittal of the as-built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
b. Convey to the permittee or create in the permittee any interest in real property;
c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
a. Immediately if any previously submitted information is discovered to be inaccurate; and
b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from

the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

Special Conditions for Individual Environmental Resource Permits, 62-330.350, F.A.C.

1. The construction authorization for this permit shall expire on the date shown on page 2.

2. Operation and maintenance of the stormwater management system shall be the responsibility of Florida Department of Transportation - Florida's Turnpike Enterprise. The permittee shall notify the Agency in writing within 30 days of any conveyance or division of ownership or control of the property or the system, and the new owner must request transfer of the permit in accordance with Rule 62-330.340, F.A.C.

3. This permit does not authorize the permittee to cause any adverse impact to or "take" of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of "take" and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a "take" permit cannot be issued. Requests for further information or review can be sent to: FWCConservationPlanningServices@MyFWC.com.

Project Work Schedule for Permit No. 06-102299-P

The following activities are requirements of this Permit and shall be completed in accordance with the Project Work Schedule below. Please refer to both General and Special Conditions for more information. Any deviation from these time frames will require prior approval from the District's Environmental Resources Bureau and may require a minor modification to this permit. Such requests must be made in writing and shall include: (1) reason for the change, (2) proposed start/finish and/or completion dates, and (3) progress report on the status of the project.

Condition No.	Date Added	Description	Due Date	Date Satisfied
GC 4	12/10/2019	Construction Commencement Notice	48 hours prior to Construction	
GC 6	12/10/2019	Submit Certification	30 Days After Construction Completion	
GC 7	12/10/2019	Submit Operation Entity Documentation	Within 30 days of Certification	

GC = General Condition

SC = Special Condition

Distribution List

Jeffrey Swisher, Kimley-horn

Fred Gaines, Atkins / Fte

Carlos Estrella, Atkins / Fte

Jaime Albino, Kimley-Horn and Associates

Audubon of Florida - Charles Lee

City of Pembroke Pines

Div of Recreation and Park - District 5

US Army Corps of Engineers - Permit Section

Broward County

City Of Fort Lauderdale

Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website at http://my.sfwmd.gov/ePermitting and searching under this application number 191018-2081.

Exhibit No. 1.0 Location Map

Exhibit No. 2.0 SWM Plans

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day.

Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.
- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions setforth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.

FORM #0157
Rev 08/95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
PERMIT MODIFICATION NO. 06-01034-S
DATE ISSUED: NOVEMBER 9, 2006

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION-FTE
(FL TURNPIKE WIDENING-ATL BLVD/SAWGRASS EXPWY)
M.P. 263 FT BLDG. 53. TURKEY LAKE SERVICE PLAZA
OCOEE , FL 34761

ORIGINAL PERMIT ISSUED: MARCH 23, 1989

ORIGINAL PROJECT DESCRIPTION: ORIGINAL ISSUED AS A GENERAL PERMIT.

APPROVED MODIFICATION : MODIFICATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE A 458.14 ACRE HIGHWAY WIDENING PROJECT KNOWN AS FLORIDA'S TURNPIKE WIDENING - ATLANTIC BOULEVARD TO SAWGRASS EXPRESSWAY.

PROJECT LOCATION: BROWARD COUNTY , SECTION 4,5,8,9,16,17,20,21,28,29,32,33 TWP 48S
SECTION 5,6 TWP 49S RGE 42E

PERMIT DURATION: See Special Condition No.1. See attached Rule 40E-4.321, Florida Administrative Code.

This Permit Modification is approved pursuant to Application No. 060509-10, dated May , 2006. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of any activities authorized by this Permit. This Permit is issued under the provisions of Chapter 373, Part IV Florida Statutes(F.S.), and the Operating Agreement Concerning Regulation Under Part IV Chapter 373 F.S. between South Florida Water Management District and the Department of Environmental Protection. Issuance of this Permit constitutes certification of compliance with state water quality standards where necessary pursuant to Section 401, Public Law 92-500, 33 USC Section 1341, unless this Permit is issued pursuant to the net improvement provisions of Subsections 373.414(1)(b), F.S., or as otherwise stated herein.

This Permit Modification may be revoked, suspended, or modified at any time pursuant to the appropriate provisions of Chapter 373, F.S., and Sections 40E-4.351(1), (2), and (4), Florida Administrative Code (F.A.C.). This Permit Modification may be transferred pursuant to the appropriate provisions of Chapter 373, F.S., and Sections 40E-1.6107(1) and (2), and 40E-4.351(1), (2), and (4), F.A.C.

All specifications and special and limiting/general conditions attendant to the original Permit,unless specifically rescinded by this or previous modifications, remain in effect.

This Permit Modification shall be subject to the Environmental Resource Permit set forth in Rule 40E-4.381, F.A.C., unless waived or modified by the Governing Board. The Application, and Environmental Resource Permit Staff Review Summary of the Application, including all conditions, and all plans and specifications incorporated by reference, are a part of this Permit Modification. All activities authorized by this Permit Modification shall be implemented as set forth in the plans, specifications, and performance criteria as set forth and incorporated in the Environmental Resource Permit **Staff Review Summary. Within 30 days after completion of construction of the permitting activity, the Permittee shall submit a written** statement of completion and certification by a registered professional engineer or other appropriate individual, pursuant to the appropriate provisions of Chapter 373, F.S. and Section 40E-4.361 and 40E-4.381, F.A.C.

In the event the property is sold or otherwise conveyed, the Permittee will remain liable for compliance with this Permit until transfer is approved by the District pursuant to Rule 40E-1.6107, F.A.C.

SPECIAL AND GENERAL CONDITIONS ARE AS FOLLOWS:

SEE PAGES 2 - 5 OF 7 (17 SPECIAL CONDITIONS).
SEE PAGES 5 - 7 OF 7 (19 GENERAL CONDITIONS).

PERMIT MODIFICATION APPROVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ON **ORIGINAL SIGNED BY:**

BY **ELIZABETH VEGUILLA**

DEPUTY CLERK

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on November 9, 2011.

2. Operation of the surface water management system shall be the responsibility of PERMITTEE.

3. Discharge Facilities:

Basin: Basin 1

1-drop inlet with crest at elev. 10' NAVD.

Receiving body : C-14 Canal
Control elev : 5.93 feet NAVD. /5.93 FEET NAVD DRY SEASON.

Basin: Basin 2

1-5.25" dia. CIRCULAR ORIFICE with invert at elev. 7' NAVD.
1-drop inlet with crest at elev. 8' NAVD.

Receiving body : Existing system
Control elev : 7 feet NAVD. /7 FEET NAVD DRY SEASON.

Basin: Basin 3

1-6" dia. CIRCULAR ORIFICE with invert at elev. 8' N. VD.
1-drop inlet with crest at elev. 9' NAVD.

Receiving body : Existing system
Control elev : 8 feet NAVD. /8 FEET AVD DR SEASON.

Basin: Basin 4

1-2' WIDE SHARP CRES D weir wit rest a elev. 10.8' NAVD.
1-drop inlet with crest at v. 13.3' NAV

Receiving body : Existing syst
Control elev : 8.43 feet NAVD. /8. EET NAVD DRY SEASON.

4. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

5. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

6. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

7. Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth, unless shown on the plans.

8. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

9. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all

permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

10. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

11. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

12. All special conditions and exhibits previously stipulated by Permit Number 06-01034-S remain in effect unless otherwise revised and shall apply to this modification.

13. Reference is made to Exhibit No. 2, consisting of drainage plans and detail sheets. The drawings have been signed and sealed by Michael W. Shannon, P.E., of HNTB Corporation on September 1, 20[illegible] and have been included in this permit by reference (please see permit file).

14. Manatee exclusion grates shall be placed across the openings of existing or proposed culverts or pipes that are greater than eight inches but smaller than eight feet in diameter in accordance with Exhibit No. 2. The installation of grates applies to any submerged or partially submerged pipes and culverts accessible to manatees during any tidal phase. Permittee shall keep all grates free and clear of debris.

15. The permittee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s).

The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.

Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exist from essential habitat.

All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

If manatee(s) are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.

Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-772-562-3909) in south Florida.

Temporary signs concerning manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the permittee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads Caution: Manatee Area will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 81/2" by 11" which reads Caution: Manatee Habitat. Idle speed is required if operating a vessel in

the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-772-562-3909) in south Florida.

16. Silt screens, hay bales, turbidity screens/barriers or other such sediment control measures shall be utilized during construction. The selected sediment control measures shall be installed prior to the commencement of construction in or adjacent to other surface waters in accordance with Exhibit No. 2 and shall remain in place until all adjacent construction is completed. All areas shall be stabilized and vegetated immediately after construction to prevent erosion into the wetlands and upland buffer zones.

17. The authorization for construction of the surface water management system is issued pursuant to the water quality net improvement provisions referenced in Rule Section 40E-4.303(1), Florida Administrative Code; therefore, the state water quality certification is waived.

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activities authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee

shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

40E-4.321 Duration of Permits

(1) Unless revoked or otherwise modified the duration of an environmental resource permit issued under this chapter or Chapter 40E-40, F.A.C. is as follows:

(a) For a conceptual approval, two years from the date of issuance or the date specified as a condition of the permit, unless within that period an application for an individual or standard general permit is filed for any portion of the project. If an application for an environmental resource permit is filed, then the conceptual approval remains valid until final action is taken on the environmental resource permit application. If the application is granted, then the conceptual approval is valid for an additional two years from the date of issuance of the permit. Conceptual approvals which have no individual or standard general environmental resource permit applications filed for a period of two years shall expire automatically at the end of the two year period.

(b) For a conceptual approval filed concurrently with a development of regional impact (DRI) application for development approval (ADA) and a local government comprehensive plan amendment, the duration of the conceptual approval shall be two years from whichever one of the following occurs at the latest date:

1. the effective date of the local government's comprehensive plan amendment.
2. the effective date of the local government development order.
3. the date on which the District issues the conceptual approval, or
4. the latest date of the resolution of any Chapter 120.57, F.A.C., administrative proceeding or other legal appeals.

(c) For an individual or standard general environmental resource permit, five years from the date of issuance or such amount of time as made a condition of the permit.

(d) For a noticed general permit issued pursuant to chapter 40-E-400, F.A.C., five years from the date the notice of intent to use the permit is provided to the District.

(2)(a) Unless prescribed by special permit condition, permits expire automatically according to the timeframes indicated in this rule. If application for extension is made in writing pursuant to subsection (3), the permit shall remain in full force and effect until:

1. the Governing Board takes action on an application for extension of an individual permit, or
2. staff takes action on an application for extension of a standard general permit.

(b) Installation of the project outfall structure shall not constitute a vesting of the permit.

(3) The permit extension shall be issued provided that a permittee files a written request with the District showing good cause prior to the expiration of the permit. For the purpose of this rule, good cause shall mean a set of extenuating circumstances outside of the control of the permittee. Requests for extensions, which shall include documentation of the extenuating circumstances and how they have delayed this project, will not be accepted more than 180 days prior to the expiration date.

(4) Substantial modifications to Conceptual Approvals will extend the duration of the Conceptual Approval for two years from the date of issuance of the modification. For the purposes of this section, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different water resource or environmental impacts which require a detailed review.

(5) Substantial modifications to individual or standard general environmental resource permits issued pursuant to a permit application extend the duration of the permit for three years from the date of issuance of the modification. Individual or standard general environmental resource permit modifications do not extend the duration of a conceptual approval.

(6) Permit modifications issued pursuant to subsection 40E-4.331(2)(b), F.A.C. (letter modifications) do not extend the duration of a permit.

(7) Failure to complete construction or alteration of the surface water management system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization in order to continue construction unless a permit extension is granted.

Specific authority 373.044, 373.113 F.S. Law Implemented 373.413, 373.416, 373.419, 373.426 F.S. History—New 9-3-81, Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4/20/94, Amended 7-1-86, 4/20/94, 10-3-95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045 • TDD (561) 697-2574
Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov

Environmental Resource Regulation
Application No.: 080226-11

March 27, 2008

FLORIDA DEPARTMENT OF TRANSPORATION
M P 263 FT BLDG 5315
TURKEY LAKE SERVICE PLAZA
OCOEE, FL 34761

Dear Permittee:

SUBJECT: **PERMIT NO.: 06-01034-S**
Project : FLORIDA'S TURNPIKE WIDENING- ATLANTIC BLVD - P B COUNTY LINE
Location: Broward County, S4,5,8,9,16,1 20,21,28 29,32,33/T48S/R42E
S5,6/T49S/R42

District staff has reviewed the information subm d Februa 26, 2008, for a modification of the referenced permit to delete Special Condition No. wh required installation of manatee exclusion grates on outfall pipes. Documentation produced by t U.S ish d Wildlife Service and the Florida Fish and Wildlife Conservation Commission has been subm d to show that the outfall pipes associated with the Turnpike Widening from Atlantic Boule ard t he Bro ard/Palm Beach County line as described in the enclosed letter discharge to portions the SF MD C 4 Canal and the Broward County C-3 Canal which are not accessible to manatees Refer t nclosed Exhibit No. 2). Based on this information, Special Condition No. 14 is no longer ap ble. Revised plans submitted with the request on February 26, 2008 howing the showing th ll str ture locations are included in this modification by reference as Exhibit No. 3 and are held the perm file.

Based on that information, Di ict staff ha determined that the proposed activities are in compliance with the original environmental res ce pe mit and appropriate provisions of FAC Rule 40E-4.331(2)(b). Therefore, these changes have be corded in our files.

Please understand that your permit remains subject to the General Conditions and all other Special Conditions not modified and as originally issued.

Should you have any questions concerning this matter, please contact this office.

Sincerely,

Barbara J. Conmy
Sr Supv Environmental Analyst
Palm Beach Service Center

BC/bc

NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filing by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be deemed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does <u>not</u> constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office**. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

Initiation of an Administrative Hearing

Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose to the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District's Governing Board takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

PBS&J

An employee-owned company

General Consultant
Florida's Turnpike Enterprise
Florida Department of Transportation

FLORIDA'S TURNPIKE ENTERPRISE

RECEIVED
FEB 26 2008
ENVIRONMENTAL SECTION NRM

080226-11

February 22, 2008

Ms. Anita Bain
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

RE: SFWMD Individual ERP# 06-01034-S, Application # 060509-10
FPID # 406150-1, FDOT Florida's Turnpike Enterprise
Mainline Widening from Atlantic Blvd. to the Broward/Palm Beach County Line
Broward County, Florida
Request for Letter Permit Modification

Ms. Bain:

In our original permit application for the widening of Florida's Turnpike (State Road 91) from Atlantic Boulevard to the Broward/Palm Beach County Line, Turnpike proposed to install manatee protection grates on all proposed stormwater management outfall pipes (8 inches to 72 inches in diameter) connecting to the SFWMD C-14 Canal.

Turnpike has recently obtained information, jointly produced by the U.S. Fish and Wildlife Service (USFWS) and Florida Fish and Wildlife Conservation Commission (FFWCC), which appears to render Special Condition #14 of the above-referenced SFWMD permit (attached) obsolete. Based on the attached Figure 1, Turnpike understands that the portion of the SFWMD C-14 Canal within the project area is not accessible to manatees. This attached information is also available at the following internet address:

http://www.fws.gov/verobeach/index.cfm?method=programNavProgramCategoryID=11&programID=116&ProgramCategoryID=11

With this letter, the Turnpike requests a permit modification to remove Special Condition #14 from the above-referenced SFWMD permit, as manatee protection grates should not be required on inaccessible canals. Turnpike is including revised construction plan sheets showing the removal of applicable manatee protection grate structures, referred to in the previously submitted plans as "guard at pipe end". Manatee exclusion grates have been removed from Structure S-144 discharging to the C-14 Canal (west of the Turnpike), and structures discharging to the Broward County C-3 Canal, which discharges to the C-14 Canal (east of the Turnpike) via a 10'9" CMP arch pipe. The Broward County C-3 Canal structures affected are S-116, S-117, S-118, and S-134 through S-143A. We are providing three (3) copies of the appropriate revised plan sheets to update your permit files.

In closing, this project continues to provide the required treatment volumes, and the post-development discharge rate is less than the existing discharge rate as previously permitted. Turnpike has already obtained concurrence from the U.S. Army Corps of Engineers and USFWS on the removal of these grate structures (see attached correspondence). Turnpike has also included the required $100 letter permit modification review fee check.

RECEIVED
FEB 26 2008
ENV RES REGULATION

P.O. Box 613069 • Ocoee, FL 34761
Turnpike Mile Post 263, Building 5315 • Ocoee, FL 34761 • Telephone: 407.532.3999

EXHIBIT 2 SHEET 1 OF 3

Thank you for the SFWMD's continued coordination on various Turnpike projects. If any additional information is required, please feel free contact me at 407-264-3675, or via e-mail at gordon.mullen@dot.state.fl.us.

Sincerely,

Gordon S. Mullen

Gordon S. Mullen, AWB
FDOT Turnpike Environmental Permit Coordinator

Attachments

Cc: Peter Kuhne, P.E. – Turnpike